

ABSTRACT

Title of Thesis: DEVELOPMENT AND FIELD TEST OF A TRAINING
MANUAL TO INCREASE THE ACCURACY OF THE IC-
TEAM MODEL'S STUDENT DOCUMENT FORM REVIEW
PROCESS

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Treatment integrity is an important, though underutilized, component of the research process. For a process to be effective, it must be implemented as intended. The IC-Teams model currently uses the Student Documentation Form (SDF) Review process to establish treatment integrity. However, the review process itself must be conducted with integrity. Thus, this study examined the impact of a structured training process and manual on the scoring of SDFs when compared to an expert rater.

Five raters from a mid-Atlantic public school district were provided with training manuals based on pilot study recommendations, a training session, and opportunity to practice scoring. Participants then scored ten SDFs. The results of this study demonstrated an increase in scoring accuracy when compared to the pilot. However, certain items continued to be scored inaccurately despite careful attention paid to them in the training process. Implications and recommendations for change are discussed.

DEVELOPMENT AND FIELD TEST OF A TRAINING MANUAL TO INCREASE
THE ACCURACY OF THE IC-TEAM MODEL'S STUDENT DOCUMENTATION
FORM REVIEW PROCESS

by

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CHAPTER ONE

Introduction

Background

The passing of Public Law (PL) 94-142 in 1975 was intended to ensure access of all children to an education and provide special education for those who required it in the least restrictive environment possible (Flugum & Reschly, 1994; Reynolds & Gutkin, 1999). More recently, IDEA, the reauthorization of PL 94-142, included provisions to ensure that children receive proper instruction prior to referral (Reynolds & Gutkin, 1999). With the growing emphasis on interventions prior to referral to special education and the increased use of collaborative problem-solving processes, there is growing interest in research to document the effectiveness of these models. In order to determine the effectiveness of consultation service models, research needs to be conducted examining the relationship between elements of the consultation model and the impact on student outcomes. As part of this needed research, a primary issue is the extent to which consultation process elements are being used correctly and the relationship between process elements and positive student outcomes. Related to that is the need to gauge treatment integrity in terms of inter- and intra-rater agreement: how much training is needed for raters of an instrument to score reliability and accurately on a consistent basis.

Thus, the concept of treatment integrity of the consultation process, or process integrity, is receiving increasing attention. For example, Telzrow, McNamara, and Hollinger (2000) reflected that “student change during problem solving implementation may be attributed to at least three distinct but interrelated factors: the fidelity of problem

solving implementation, the degree to which the selected interventions are empirically supported, and the integrity of the intervention implementation” (p. 456).

As the effectiveness of any program depends on the degree to which it was implemented correctly, there has been an increasing emphasis upon measuring or evaluating treatment integrity when evaluating student outcomes (e.g., Wickstrom, Jones, LaFleur, & Witt, 1998; Telzrow, McNamara, & Hollinger, 2000). Treatment integrity typically refers to the assurance that interventions are implemented as intended (Wickstrom et al., 1998), but may also refer to the degree to which consultation process elements are implemented (Rosenfield & Gravois, 1996). The treatment integrity literature generally focuses on the treatment integrity of the implementation of interventions; however, such information can generalize to integrity of a process as well. The literature describes key components that must be present for an intervention to be successful; similar key elements must be present and adhered to in a consultation process as well. According to Gresham, MacMillan, Beebe-Frankenberger, and Bocian (2000), the “degree to which each component of the treatment is implemented can be thought of as the reliability [integrity] of that component of the intervention” (p. 6).

Treatment integrity is described by some as “necessary but not sufficient” (Gresham et al., 2000, p. 3). In other words, treatment integrity is required to demonstrate the efficacy of a treatment, but the mere presence of integrity does not ensure the efficacy of an intervention or a process. For example, one could have an ineffective treatment that is implemented correctly; it may have been executed well, but ultimately, it still did not work.

However, a lack of treatment integrity can threaten internal validity by creating doubt as to whether outcomes were due to treatment, as well as threaten external validity by complicating effective replication and generalizability (Gresham et al., 2000). A study by Telzrow et al. (2000) shows the importance of treatment integrity before determining the effect on student outcomes. Furthermore, the authors suggest that more research is needed on treatment integrity and how it is affected by training. The literature also establishes a need for more research on process integrity and the documentation of those processes (Sheridan & Welch, 1996).

The Instructional Consultation model, a team-based collaborative problem-solving process, was developed with early intervention support service as a primary goal (Rosenfield, 1987; Rosenfield & Gravois, 1996). The program evaluation component, which provides technical support and constructive feedback to school-based teams in the public school setting, includes a much-needed emphasis on the issue of treatment integrity. Team members are interviewed twice per year and a checklist is used to measure the extent to which key elements of the IC process are used, according to the team members' perspectives. The documentation forms used throughout the process are similarly examined to ascertain the extent to which such forms were filled out with integrity. Case manager-teacher pairs who engage in key elements of the problem-solving process and match each other's answers suggest to the evaluators that the process was implemented with a certain degree of integrity and have achieved a shared perspective regarding their case. Documentation forms filled out accurately further indicate the extent to which the problem-solving process was adhered to and the extent to

which the intervention designed matched the identified problem and was carried out as intended.

Flugum and Reschly (1994) state that student outcomes may be enhanced through the inclusion of certain criteria, namely a specific behavioral definition, measures of an intervention, a specific intervention plan, treatment integrity, graphing of data, and comparison of the intervention data to baseline. The Student Documentation Form (SDF), which is the main piece of documentation used to demonstrate student outcomes resulting from the Instructional Consultation Team Model, incorporates key indicators such as baseline, goal setting, strong treatment interventions, as well as space to document the consultation process. Levinsohn (2000) showed that proper documentation positively impacts the consultation process and allows for determination of student outcomes.

A tool has been developed as part of the IC-Team Program Evaluation (LOI) process to review SDFs for presence of these key indicators. The Level of Implementation (LOI) of the IC-Team process for a given school is established by conducting interviews with relevant teachers and case managers for all cases that have reached intervention implementation, as well as by reviewing the Student Documentation Forms for those particular cases (Rosenfield & Gravois, 1996). However, just because positive student outcomes are achieved does not mean that the intervention (or process) was implemented as intended (Gutkin, 1993; Wickstrom et al., 1998).

Statement of the Problem

The question remains, is there a tool that may be used reliably and accurately in the field in order to assess the integrity of the IC process, thereby linking its efficacy to

student outcomes? This study will attempt to examine what is needed in order for trained IC consultants to examine their work in the field using a review form to analyze the documentation of their consultation cases on the SDF.

The goals of this investigation are: to develop a training manual to assist individual raters as they review their own team's SDFs; to field test the manual by providing a training session with constructive feedback and evaluating the level of agreement by comparing individual ratings to those of an expert rater; and to recommend revisions to the manual and/or the SDF Review Form.

There are two major reasons for studying treatment integrity of IC Teams. First, research has shown that interventions are only as effective as the extent to which they are implemented with integrity. Thus, individuals using the Instructional Consultation Team model should be reasonably confident that they are engaging in all steps of the process, as that is more likely to lead to positive outcomes. By establishing conditions under which the Student Documentation Form is filled out accurately, individuals can determine their level of treatment integrity. Second, evaluation of SDFs is currently conducted by the IC-Team research team at the University of Maryland. Being able to move the SDF evaluation process out into the field will enable practitioners to monitor their own integrity of the IC model.

This training study is designed to establish the training needed in order for raters to achieve an optimal level of accuracy. There is evidence in the literature to suggest that didactic forms of training can improve levels of treatment integrity (Noell, Witt, Ranier, & Freeland, 1997).

Research Questions

The research questions to be addressed in this study are as follows:

1. Can raters be trained to an acceptable level of agreement when compared to an expert rater (e.g., Cohen's Kappa value > 0.70) for each item on the SDF Review Form?
2. Which items are the most difficult for raters to score accurately?
3. What suggestions did participants have to improve the training?

Definition of Terms

IC-Teams—Instructional Consultation Teams, a team-based collaborative problem-solving model of indirect service delivery

SDF—Student Documentation Form; the primary form used in the IC model to track progression through the problem solving stages in a given case, to design appropriate interventions, and to set goals and collect data

SDF Review Form—Form used in the program evaluation process to analyze the extent to which SDFs were completed accurately; Part 1 includes information recorded from the team's case tracking sheet, whether or not an SDF exists for a given case, and whether or not identifying information regarding case participants and consultation records are indicated on the SDF; Part 2 examines the extent to which baseline data points were collected, an appropriate intervention was designed, and how well the intervention was monitored and evaluated by the case manager-teacher pair for a given concern; Part 3 measures the level of goal attainment for a particular concern indicated on the SDF

Treatment Integrity—The extent to which the IC process was adhered to accurately as measured by the quality completion of Student Documentation Forms; accurate use of the SDF Review Form will indicate presence or absence of key indicators necessary for quality SDF completion

Accuracy—Refers to how consistently concerns were scored by raters when compared to an expert

Level of Agreement—The extent to which agreement exists between raters; does not indicate accuracy (or how correct the scores were) based upon specified criteria

CHAPTER TWO

Review of Literature

When consulting with teachers regarding interventions, one must pay special attention to the issue of treatment integrity. This chapter first presents a description of and research on consultation, with an emphasis on the Instructional Consultation model. Then, the issue of treatment integrity is reviewed by examining the distinctions between types of treatment integrity, including integrity of both the process used to design interventions as well as the integrity of the intervention itself and the methods used for documentation. The chapter concludes with a discussion of the attempts to determine treatment integrity of the Instructional Consultation process, using the Student Documentation Form (SDF).

Consultation

In the field of school psychology, services may be delivered directly to the children or indirectly through consultation in which the consultant works with a consultee who in turn delivers services to the client (usually, the child). The growing emphasis on inclusion placed by Federal legislators, in which children with disabilities are still educated in regular classes, puts the onus on the teachers to teach children with many different needs and expectations at the same time. Some school systems have responded to this issue by increasing the use of a problem-solving model in which teachers and specialists collaborate closely to design and implement treatment programs in mainstream settings, thereby addressing problems before they escalate and/or ultimately reducing the number of children referred to special education in the first place.

There are different models of indirect service delivery that are often used in the schools and they mostly share common goals and assumptions (Reynolds & Gutkin, 1999). One typical characteristic of consultation is that services are delivered indirectly to the client. The consultant works with a consultee (typically, a teacher or parent) who in turn works with the client (typically, a children or children). Treatment services are developed and provided to the client as a result of the consultation process and are implemented by the consultees. The goals of the consultation process are remediation, by working with consultees to develop interventions, and prevention, by improving the practices of consultees so that they may prevent and/or respond better to similar problems in the future (Reynolds & Gutkin, 1999). Prevention may be primary, in which new problems are prevented from ever occurring, or it may be secondary in which new problems are addressed and remediated immediately before they escalate (Reynolds & Gutkin, 1999).

In consultation, a strong working relationship between the consultant and consultee is necessary for change to occur (Reynolds & Gutkin, 1999). Consultants must be viewed as trustworthy and possessing expertise pertaining to the issues at hand. The relationship should be collaborative in that the consultant and consultee have shared power in the relationship. Shared power does not necessarily imply equivalent bases of knowledge. The consultant works with the consultee to problem-solve, as in collaborative consultation, rather than simply advising the consultee by offering sets of instructions, as in expert consultation (Reynolds & Gutkin, 1999). Collaborative consultation is much more nurturing and the process is expected to continue through

implementation of an intervention with periods of feedback and modification or redesign of the intervention, if necessary.

The relationship between consultant and consultee should be voluntary and initiated by the consultee, ensuring a more productive and nonhierarchical relationship between both parties. The relationship should be active, facilitated by data collection affording consultants and consultees the ability to develop treatments in response to consultee perspectives and biases, increase ownership of ideas on the part of consultees, and enable both parties to provide feedback (Reynolds & Gutkin, 1999). Additionally, the relationship is bound by confidentiality to the extent that the rights of consultees are balanced “with the rights of society, school officials, and parents to be informed about the education and treatment of children” (Reynolds & Gutkin, 1999, p. 606).

In the consulting relationship, both consultants and consultees have clear responsibilities. Consultants are responsible for establishing and guiding the consulting process, for creating an open and supportive environment that fosters growth and development, for the integrity of the problem-solving process, for role modeling, and for giving and receiving feedback, while consultees are responsible for initiating the relationship and for taking action on treatment programs (Reynolds & Gutkin, 1999). The responsibility of bringing respective areas of expertise to the relationship is shared between consultants and consultees.

The consulting process is typically delineated into three phases: assessment, intervention, and follow-up (Reynolds & Gutkin, 1999). In the assessment phase, it is imperative that the process is thorough and that it is “congruent with one’s underlying assumptions about the nature of human behavior” (Reynolds & Gutkin, 1999, p. 608).

Observation of behaviors in the natural setting and interviews with parents and teachers should be incorporated into the assessment to gain a broad understanding of the presenting problem. Assessments should revolve around a set of specific referral questions and should be conducted with as little disruption to the natural environment as possible.

The intervention phase, in which the product of the consulting relationship is produced, may come about through a multitude of approaches individually geared to the problem at hand. Consultants should be familiar with the efficacy of the intervention according to the research literature. Consultants should also consider various aspects of the intervention by examining which parts of the plan are acceptable to the consultee and whether consultees are able to execute the treatment properly (Reynolds & Gutkin, 1999). The latter concept is also known as treatment integrity and is an important issue surrounding indirect service delivery. In other words, consultants need to be mindful of not only whether consultees possess the skills needed to implement the intervention program but also the extent to which consultees implement the treatment consistently and accurately. Treatments that are not compatible with the natural ecology of the classroom or the home are less likely to be implemented correctly, if at all, because they simply may be too disruptive to the normal course of activity or too difficult to implement.

During and after the implementation of the treatment program, the consultant should provide much needed reinforcement and feedback to the consultee regarding skills, techniques, and process of implementation (Reynolds & Gutkin, 1999). This cycle of reinforcement and feedback greatly promotes professional growth as well as helps to develop further the working consulting relationship. This short-term follow-up phase

may last anywhere from one day to several weeks and is necessary to determine whether the program needs to be modified or redesigned altogether. Consultees often find that treatment programs that sounded simple initially are actually quite difficult to implement and that they lack the necessary skills and resources to implement the treatment properly. Consultants need to be mindful of these concerns and criticisms and address them promptly.

There are several different models of consultation in the literature, such as ecobehavioral, mental health, organizational, and instructional. These models all share the core assumptions and goals as described earlier, but differ slightly in their purposes and foci. In ecobehavioral consultation, the purpose is to address problems by altering the relationship between the individual and the immediate environment in some way (Reynolds & Gutkin, 1999). In mental health consultation, the primary goal may be prevention or remediation and the focus may be either individual cases or entire programs (Reynolds & Gutkin, 1999). The approach known as consultee-centered case consultation is considered the most common type of mental health consultation approach, in which the goal is prevention and the focus is on individual cases. In the organizational and systems consultation mode, the client is a group within the organization, or perhaps even the organization itself (Reynolds & Gutkin, 1999). The focus is to effect change on a large-scale, statewide basis and is based on the premise that healthy experiences are more likely to occur in healthy organizations.

Sheridan and Welch (1996) conducted a review of consultation outcome research from 1985 to 1995, examining the methodologies of the various studies and the outcomes demonstrated. Their review revealed that studies utilizing the behavioral consultation

model were the most prevalent in the literature at that time, and that approximately three-fourths of the 46 studies reviewed reported positive outcomes. Even though a research bias exists, in that only positive outcomes tend to be published, such a comprehensive literature review lends credibility to the consultation approach of service delivery and to its relative efficacy. Sheridan and Welch (1996) also examined the extent to which the consultation studies reviewed attended to the concept of treatment integrity. According to their research, only 26% of the studies reviewed examined the treatment integrity of the consultation processes being used. The authors note that while the studies described the consultation processes being used, few included discussions of the extent to which such process deliveries were monitored and documented to ensure that the processes were being delivered as intended.

The Instructional Consultation Model

The Instructional Consultation model draws on many elements incorporated in those mentioned previously. “Instructional consultation represents a joining of two major strands in the field of school psychology and educational consultation: the process of collaborative consultation and the knowledge domain of instructional psychology” (Rosenfield, 1987, p. 3). Instructional consultation is a stage-based, problem-solving, collaborative process designed to enhance the instructional environment for the individual child. Thus, the model incorporates many of the goals and assumptions seen in other models of consultation, while maintaining a collaborative emphasis. Consultants use a variety of communication skills to define a problem in clear, specific terms that lead to an intervention (Rosenfield, 1987).

There is a strong emphasis placed on data collection in order to ascertain whether or not set goals have been obtained. The emphasis on data collection allows for the monitoring of treatment integrity; if an intervention has been implemented as intended, the reaching of goals can be more strongly linked to the intervention itself. The Instructional Consultation model also accounts for the teacher's capabilities as well as the ecology of the classroom, incorporating the concept of treatment acceptability. Since the intervention will ultimately be implemented by the teacher, it needs to be acceptable in order to be implemented as intended. "Effective interventions are those that promote meaningful changes...[and include] a structured problem-solving process...and a logistical system" for doing so (Lentz et al., 1996, p. 120). Increasing treatment acceptability makes it more likely that interventions will be implemented as intended.

Research conducted on the use of goal-attainment among IC-Teams (e.g., Levinsohn, 2000; Vail, 1997) revealed that goals could be either academic or behavioral, or both, and were measured by comparing the initial goal set with the data collected to determine whether goals were met, no change was shown, or whether performance actually declined. Rosenfield et al. (1997) found that 75% of goals set in 13 schools during the 1994-1995 school year were either met or showed significant progress towards attainment. Vail (1997) found 93% of goals set in two schools during the 1996-1997 academic year were either met or showed significant progress towards attainment. When compared to other academic years, the levels of goal attainment were quite variable. These studies suggest that level of experience and training can have an effect on goal implementation.

Rosenfield and Gravois (1996) suggest that evaluation of student achievement and behavior is one possible student outcome measure to evaluate the IC-Team model. Goal-attainment scaling may be used to determine the extent to which students achieved the goals set for them as a result of the interventions designed to address their problem set in the larger context of the IC-Team process. To measure goal attainment based on information from SDFs, three criteria must be met: goals must be observable and measurable, baseline data must be collected and graphed, and post-intervention data must be collected and graphed as well (Rosenfield & Gravois, 1996).

The IC Process can only be effective to the extent that it was implemented correctly. The stages need to be followed faithfully, enabling accurate identification of the problem, careful design of an appropriate intervention, implementation of the intervention with integrity, and careful documentation of all of these events.

Treatment Integrity

Treatment integrity typically refers to the assurance that interventions are implemented as intended (Wickstrom, Jones, LaFleur, & Witt, 1998) but may also refer to the degree to which consultation process elements are implemented (Rosenfield & Gravois, 1996). The term “treatment integrity” typically refers to the extent that a treatment (or process) is implemented accurately and consistently (Gresham, MacMillan, Beebe-Frankenberger, & Bocian, 2000). Studies rarely include mention of treatment integrity of the interventions used, but it is even more unusual to find studies examining the treatment integrity of the consultation process, even though the latter may be considered just as important. Recently, researchers have made the argument that more

investigations are needed on the issue of treatment integrity (Jones, Wickstrom, & Friman, 1997).

In order to determine the effectiveness of indirect service delivery models, researchers evaluate progress using various outcome measures. These outcome measures might be in the form of surveys, self-report measures, or degree of student behavior change after implementation of a particular intervention. However, according to Wickstrom et al. (1998), positive outcomes do not necessarily confirm that the intervention in question was implemented correctly or adequately; therefore, treatment integrity must be evaluated.

Treatment Integrity of the Process

In a study by Telzrow, McNamara, and Hollinger (2000), the relationship of treatment integrity to student outcomes was investigated among 227 multidisciplinary teams (MDTs) in the state of Ohio. Telzrow et al. assessed completed work products that included the central problem-solving components of description of the target behavior, measurable goals, description of the intervention, and collected baseline and intervention data, as well as assessed evaluation forms that included descriptions of the concerns, the interventions, and evaluations of student progress. The authors found that the presence of certain problem-solving components to ensure treatment integrity, specifically a clearly identified goal and data demonstrating students' positive responses to intervention, were predictive of positive student outcomes.

These findings relate to a study conducted by Flugum and Reschly (1994) that examined multidisciplinary teams and the extent to which they demonstrated specific skills deemed necessary for successful intervention planning. The authors found that

MDTs that included specific problem-solving criteria in their intervention designs tended to have more positive student outcomes, leading to the conclusion that consultation processes that have certain problem-solving criteria tend to have better outcomes.

The majority of studies examining the efficacy of consultation models conducted from 1985 to 1995 did not attend to the topic of treatment integrity; in fact, treatment integrity was discussed in only 26% of those studies (Sheridan & Welch, 1996). Unless treatment integrity of the process is examined, researchers cannot be sure that the outcomes obtained in their studies were indeed due to the consultation process itself and that consultants were adhering to the consultation processes as intended (Gutkin, 1993).

Treatment Integrity of the Interventions

Treatment integrity is necessary to know whether and to what extent a treatment has been implemented correctly, so that any outcomes may be attributed to the intervention (Telzrow et al., 2000). Although treatment integrity has been found to be predictive of student outcomes, such predictions must be interpreted with caution unless treatment integrity has been examined.

Flugum and Reschly (1994) surveyed 360 regular education teachers and 422 related service personnel concerning 470 students over a three year period. The survey investigated the extent to which the interventions being provided had certain characteristics, specifically: a behavioral definition that operationalizes the target behavior, an intervention plan that specifies measures to be used, a focus on treatment integrity, frequent graphing of data, and comparison of data collected at intervention to data collected at baseline to determine whether goals set for the student were obtained. The results of their study reflected a low implementation rate of five of the six

characteristics. The graphing of results and comparison of results to baseline were utilized the least in the interventions surveyed. The most often used characteristic was the use of behavioral definitions. A positive relationship was drawn between the interventions demonstrating increased student outcomes and the number of quality characteristics contained in the intervention. Based upon their results, Flugum and Reschly (1994) suggested that student outcomes may be improved by ensuring that interventions contain the quality characteristics examined in their study. Evaluating the presence of these characteristics would be needed to ensure treatment integrity.

A study conducted by Bahr (1994) on the use and efficacy of prereferral interventions in a school setting demonstrates the relative lack of attention to treatment integrity in school-based practice. Bahr's study revealed that 13% of the 49 directors of special education who participated in the study were unable to determine the success of the interventions implemented. Ten percent of the directors were unable to name individuals responsible for monitoring the interventions and ensuring that they are implemented appropriately.

A review by Watson and Sterling (1997) offer hypotheses as to why the notion of treatment integrity may not be included in research studies as often as they should. They suggest that some authors make leaps of inference when explaining treatment outcomes, confusing treatment acceptability with treatment integrity. In other words, researchers often cite satisfaction with an intervention as indication that it was implemented as intended, but no actual documentation of such integrity is offered or examined. Sterling-Turner, Wildmon, Watkins, and Little (2001) found that level of training, rather than acceptability, was related to treatment integrity adherence. Thus, Watson and Sterling

(1997) recommend that additional research in this area is needed in order to understand the importance of treatment integrity and to help researchers to include attention to it when publishing their work.

Methods to Improve Treatment Integrity

Research suggests that didactic forms of training and feedback can improve levels of treatment integrity (Noell, Witt, Ranier, & Freeland, 1997; Jones, Wickstrom, & Friman, 1997). In particular, direct training procedures, such as modeling and rehearsal/feedback methods, resulted in better treatment integrity (Sterling-Turner, Watson, Wildmon, Watkins, & Little, 2001).

Methods of Documenting Treatment Integrity

An evaluation of outcome studies from 1980 to 1988 found that 55% of the studies reviewed did not address the issue of treatment integrity (Moncher & Prinz, 1991). When a process is implemented correctly, students will benefit as measured by student outcomes. Moniodis (1996) postulated that proper documentation could positively impact the consultation process and allow for better determination of student outcomes, based upon her research within the IC model. Her ultimate ability to link the IC process to the student outcomes obtained was limited, due to missing data and poorly completed documentation forms.

Green-Resnick & Rosenfield (1989) studied seven schools with pre-referral teams that were given training in the areas of consultation techniques, methods of assessment (specifically, curriculum-based assessment), and intervention strategies. Using an early version of the SDF, results indicated difficulty with form completion, leading to scoring inaccuracies during data evaluation. Overall, the results indicated that “nearly 70% of the

goals were either fully or partially achieved for the students involved in the system,” suggesting that the pre-referral process was potentially having a positive effect on student outcomes (Green-Resnick & Rosenfield, 1989, p. 16). Given the difficulty interpreting the documentation forms due to poor completion, the researchers could not be sure that the consultation process was adhered to adequately. Better treatment integrity of either the process, the intervention, or the documentation of these events might have increased the number of students that reached their goals.

A study by Telzrow et al. (2000) attempted to address the issue of documentation completion found by Green-Resnick and Rosenfield (1989). They analyzed work products and progress-monitoring data rather than self-reports or surveys due to the limitations of methods typically used to measure treatment integrity (e.g., observation, self-report data, interviews, and surveys). Student outcomes were measured by the degree of student change, which showed overall improvement, although goals were not achieved or exceeded. The researchers discuss the overall difficulty in documenting treatment integrity and make recommendations that future research study the effect of training on documentation and process integrity. Furthermore, the researchers discuss that the poor documentation did not necessarily reflect the skill level with which the consultants implemented the consultation processes and/or interventions, because the processes and interventions could have been implemented correctly but documented poorly.

Burgee (1995) demonstrated that a structured process for consultation documentation in the IC model increased the integrity of the documentation itself. By asking consultants to complete a checklist to ensure that the goal attainment scales being

used to document student outcomes were completed appropriately, consultants were required to adhere to the documentation process more systematically, thereby increasing the extent to which the consultation process was impacting upon student outcomes.

Student Documentation Form (SDF)

Green-Resnick and Rosenfield (1989) evaluated the predecessor to the SDF called the Student Observation Sheet (SOS) and reported that inter-rater reliability on scoring the form accurately was affected by clear and observable measures and accurate graphing of data. This study also demonstrated the difficulties in both using the SOS to collect data, as well as coding it to analyze the effect on study outcomes due to the ambiguity of certain items..

Moniodis (1996) replicated Green-Resnick and Rosenfield by examining the revised SOS, now called the SDF. Errors on the SDF were coded, and a survey was developed to determine errors in documentation and graphing and to evaluate perceived errors reported by case manager versus team facilitators. Selected findings included major errors in documenting interventions, in that they were stated vaguely or not defined well. Errors documenting baseline were also found, specifically difficulties with labeling axes and phases of baseline and intervention. Moniodis found that 64% of concerns represented were behavioral (e.g., poor classroom behavior or not following directions) and 31% of the concerns were instructional (e.g., difficulties with reading or spelling); males tended to have more behavioral concerns than females. Regarding the interventions implemented, 54% of the interventions were behavioral, with 21% being disciplinary and 19% focusing on instructional practice. Moniodis recommended that future research focus upon providing a more accurate picture of the concerns, goals, and

interventions that do occur in schools using the IC-Team model in order to evaluate student outcomes.

The SDF is used to monitor student progress, indicating treatment integrity of the intervention. It may also be used to document treatment integrity of the IC process, by requiring the case manager to attend to the most important aspects of each of the problem-solving stages. Spaces on the cover of the SDF allow case managers to document the various concerns the consultee has and set goals, all critical elements of the problem-solving stage. The inside cover requires documentation of the basic elements of the intervention design.

A study by Flugum and Reschly (1994) identified “quality indicators,” or critical elements, that when present, may be directly linked to increased positive student outcomes. These critical elements include operationally defining the problem behavior, directly measuring the behavior, establishing a clear intervention plan, implementing the plan with integrity, collecting and graphing the data, and comparing the data to baseline. These critical elements were included in every aspect of development of the SDF. The SDF was revised in collaboration with school psychologists, teachers, and administrators after Moniodis (1996) revealed many weaknesses with the form, which was based upon the Student Observation Sheet as described in Green-Resnick and Rosenfield (1989).

Conclusion

As discussed in this chapter, the literature available on the importance of treatment integrity is compelling but limited. In order to know with confidence that the outcomes of a study were due to the treatment implemented, one must consider the

various types of integrity outlined in this chapter. However, relatively few studies in consultation even address, let alone explore, the topic of treatment integrity.

This study attempts to contribute to the knowledge base of the IC model by examining the important issue of treatment integrity, with respect to a particular component of the documentation and evaluation process. One way for facilitators to evaluate their progress in implementing the IC model is to examine their documentation forms for quality completion. And in order to help facilitators engage in this self-evaluation process, they must be provided with a quality evaluation tool. Thus, the focus of this study is to examine the SDF Review Form as a tool for evaluating Student Documentation Forms. If facilitators are able to evaluate their documentation forms effectively, they will be one step closer to knowing the extent to which the IC process is being implemented and used correctly in their schools.

CHAPTER THREE

Methodology

The goals of this investigation were: to develop a training manual to assist individual raters as they review their own team's SDFs; to field test the manual by providing a training session with constructive feedback and evaluating the level of agreement by comparing individual ratings to those of an expert rater; and to recommend revisions to the manual and/or the SDF Review Form.

Description of Participants

Participants in this study were trained IC-Team members (N=5) in a mid-Atlantic public school district. These individuals had received training in the IC-Team process, communication skills, and curriculum-based assessment. Four of the raters identified themselves as facilitators of their IC-Teams. One member was identified as a trained case manager and IC-Team member.

Instruments

SDF (Student Documentation Form)—The primary form used in the IC model to track progression through the problem solving stages for a given case (see Appendix A). The form is used to design appropriate interventions as well as to set goals and collect data. The form is printed on heavy-duty cardstock and folded to create a folder to hold data. The front cover provides columns and rows for consultant-teacher dyads to identify up to four concerns per child. A series of steps is delineated on the front cover to guide the dyad through the problem-solving process of identifying the concerns, examining instructional level, collecting baseline data, and setting short-, interim-, and long-term goals. The inside pages provide space for documenting the observable, measurable

behaviors; the details of the intervention plan; and a graph for collecting data. The back cover of the folder allows for maintaining a record of dates and content of consultation meetings, as well as plans for action and follow-up meetings.

SDF Review Form—This form, in three parts, is used in the program evaluation process to analyze the extent to which SDFs were completed accurately (see Appendix B). Part 1 includes information recorded from the team’s case tracking sheet, whether or not an SDF exists for a given case, and whether or not identifying information regarding case participants and consultation records are indicated on the SDF. Part 2 examines the extent to which baseline data points were collected, an appropriate intervention was designed, and how well the intervention was monitored and evaluated by the case manager-teacher pair for a given concern. Part 3 measures the level of goal attainment for a particular concern indicated on the SDF.

Training Manual—A training manual (see Appendix C) was developed in response to results obtained from the pilot study, which revealed that reliable and accurate scoring was difficult to obtain across multiple raters with minimal explanation and scoring practice. The purposes of developing the manual were to highlight items that proved to be difficult in the pilot study (those items with the lowest reliability score), to give exemplars of adequate scoring choices, and to provide structure for future trainings.

SDFs Scored—The SDFs that raters were asked to score in this study were selected based on the extent to which they illustrated cases typically captured on SDFs in the schools. Such SDFs tend to track progress of at least two concerns, focus on academic issues, and make best use of the SDF by utilizing the graphs and the consultation summaries. The SDFs were also selected based upon legibility. Ten SDFs

were selected from the larger sample of SDFs used in the pilot study, which were originally drawn from two schools in a mid-Atlantic public school district from the 1999-2000 school year. The SDFs selected at that time were based on availability and legibility of SDFs in the IC-Teams Lab. All identifying information was removed from the SDFs.

Pilot Investigation

A pilot investigation was conducted in Spring 2001 to examine the level of agreement among raters using the SDF Review Form and to determine whether any training was needed in order to use the form accurately.

Six people were divided into two groups. One group (the “Trained” group) received a training session regarding how to use the SDF Review Form. The other group (the “Untrained” group) received a brief overview of the purpose of the study and directions merely “to follow the instructions on the form carefully.” Each group consisted of one professional school psychologist, one school psychologist on internship, and one graduate student; all individuals were considered to be somewhat familiar with completing SDFs.

The Trained group received detailed instructions on how to evaluate SDFs using the SDF Review Form. The trainer went over the various components of the SDF Review Form and usage, including how and when to use Part 2 and Part 3. The three raters practiced scoring one SDF using the SDF Review Form; the trainer then checked each person’s scoring for accuracy and discussed any questions that arose. This practice-and-discuss procedure was repeated two more times.

The Untrained group received minimal explanation regarding the purpose of study. They were told that the purpose of the study was to check the SDF Review Form for reliability for the trainer's thesis, and basic instructions regarding the procedure to follow, namely: that each person would receive a number of SDFs, corresponding tracking sheets, and copies of the SDF Review Forms; that each person was to follow the instructions carefully as printed on the SDF Review Form pages; as well as additional caveats (e.g., some cases on the tracking sheets did not have corresponding SDFs; not all concerns will need to be scored using both Part 2 and Part 3, and to follow the instructions carefully).

All six raters were told that specific questions during the scoring session regarding scoring could not be answered. In addition, all six raters were given the same SDFs, corresponding tracking sheets, and blank review forms for scoring. The training of the three raters in the Trained group lasted approximately one hour and a half. The amount of time for both groups to complete scoring was approximately three hours. Each individual scored 28 SDFs.

Responses for each participant were coded and entered into an Excel spreadsheet. The participants were divided according to whether or not they received training (Trained or Untrained). These data were then analyzed pairwise within groups for agreement. The data were grouped according to concern, such that only instances when individuals were scoring the same concern as indicated on the SDF were included and compared. Instances where individuals did not score concerns as indicated on the SDF were excluded from this analysis. The instances of agreements and disagreements between pairs within the two groups were aggregated across concerns, resulting in the average

inter-rater agreement ratios presented in Table 1. The equation used to obtain the inter-rater agreement ratios was:

$$\frac{\text{Agreements}}{\text{Agreements} + \text{Disagreements}}$$

Table 3.1: Mean Inter-Rater Agreement Per Item by Level of Training (%)

Item	Trained	Untrained
1	100.00	100.00
2	100.00	100.00
3	90.48	73.33
4	84.33	82.22
5	90.32	80.23
6	85.25	92.86
7	90.68	71.95
8	91.53	85.37
9	72.03	76.83
10	72.88	76.83
Part 3	35.09	43.93
M	81.55	77.83

Note. n = 3 per group.

On average, the Trained participants had a higher rate of agreement (81.5%) than the untrained participants (77.8%). Items 1 and 2, which are relatively straightforward in terms of the information requested, had inter-rater agreements of 100% across both the trained and the untrained groups. Items 9 and 10 had relatively low rates of agreement across groups compared to the other items; this may be due to variability in participants knowing when to “stop scoring” as indicated on Part 2. Finally, the rate of agreement on Part 3 for both groups is lower than the rates of agreement on the other items. This may be attributed to one or more reasons, including variability among participants as to which GAS scale to use and the low occurrence of Part 3 being used and scored within this data

set. In other words, many of the concerns in the cases used in this study did not reach the level of intervention needed to warrant the use of Part 3.

The results of this analysis reflected the level of agreement between raters with and without specific training as to how to use the SDF Form Review. These results did not, however, reflect the *accuracy* of the raters' scorings.

Of the 28 cases reviewed in this study, 7 did not have corresponding SDFs to be scored. Of the remaining 21 SDFs that could be evaluated, each had a total of 4 possible concerns that could be listed on the SDF and considered "scorable," meaning that there was enough information presented on the SDF for particular concern to be able to score it. Thus, out of a total 84 concerns that could have been presented (four concerns for each of 21 SDFs), 65 concerns were actually indicated on the SDFs (as defined by something written on the SDF in the "General Statement of Concern" box).

The sixty-five total concerns were multiplied by 6 raters, yielding 390 instances to be analyzed pairwise for inter-rater agreement (195 instances per group). Within the Trained group, 39 concerns were not scored (20% of the total instances). This figure was for two of the three Trained raters; the third rater scored all 195 possible instances. Within the Untrained group, 76 concerns were not scored (39% of the total instances). There was a clear difference between the two groups regarding the decision of whether or not to score a concern.

There are two other significant issues worth mentioning. The first point is that Rater #3 in the Trained group scored all 195 possible instances. According to the instructions on the SDF Form Review, concerns presented on the SDF should only be scored using Form 2 if they have completed the Problem Identification Stage. The words

“Problem Identification Stage” do not correspond to the wording on the SDF, possibly creating confusion as to whether or not to continue scoring a concern with Part 2. The Trained group was instructed to score concerns using Form 2 if the third box on the SDF had been completed. It is unlikely that all 195 instances could meet this criterion; thus, Rater #3 was likely in error by scoring all instances, suggesting that training did not remove confusion on this point.

The second point to mention is that there were several instances where raters made the decision to stop scoring a concern on Item 5, Item 6, or Item 7. According to the instructions on the SDF Form Review, Part 2, these items are not considered stopping points. If these instances are considered “errors,” then there were 7 such errors within each group (3.6% of the total instances per group). One rater within each group was responsible for all the errors within the group. This suggests that the training session also did not eliminate some confusion regarding when to stop scoring. However, the error rate within each group is relatively low; thus, this may be less of a cause for concern.

While the results from this pilot study reflect a generally acceptable level of agreement (approximately 80%) between raters both with and without training (although, the level of agreement was slightly higher for the Trained group), suggesting that training does not make a difference in terms of inter-rater agreement, these results do not reflect the accuracy with which these raters scored the SDFs presented to them, nor do they reflect problems on the specific areas of the Review Form.

In order to determine level of accuracy, the data were compared to an expert rater. This rater scored SDFs using the SDF Review Form in the IC Lab at the University of Maryland as part of her assistantship. She also has led a training session on completing

the SDF accurately. Reliability was established between the expert rater used here and a second expert rater, by reviewing 20% of the SDFs scored in the pilot study. Established reliability was 97% overall.

Each of the six raters were compared to the expert rater using the simple pairwise analysis formula described earlier. Total levels of accuracy are presented in Table 3.2.

Table 3.2: Total Level of Accuracy by Rater (%)

Item	Trained				Untrained			
	1	2	3	M	4	5	6	M
1	100.00	100.00	100.00	100.00	100.00	96.43	96.43	97.62
2	100.00	100.00	100.00	100.00	100.00	95.24	100.00	98.41
3	85.71	95.24	100.00	93.65	90.48	100.00	61.90	84.13
4	86.11	75.61	87.80	83.17	90.32	90.32	78.05	86.23
5	80.56	87.80	90.24	86.20	80.65	80.65	75.61	78.97
6	75.00	78.05	97.56	83.54	83.87	80.65	95.12	86.55
7	72.22	87.80	87.80	82.61	83.87	67.74	68.29	73.30
8	83.33	87.88	88.24	86.48	79.31	88.46	71.43	79.73
9	46.67	84.38	87.88	72.98	92.86	64.00	67.65	74.84
10	55.17	75.00	72.73	67.63	82.14	64.00	70.59	72.24
Part 3	53.57	37.93	51.72	47.74	46.15	34.62	58.62	46.46
M	75.53	81.94	87.33	81.60	84.26	78.04	76.50	79.60

In addition to examining the extent to which each rater agreed with the expert rater on the scoring of items, the raters' scoring patterns were also examined for errors. Two types of errors were observed: the scoring of concerns when there was insufficient information available to be "scorable;" and not scoring a concern when it should have been scored. The later error type is considered more severe because important data is lost when a concern has enough information to be scored but is not. Scoring concerns when they need not be scored is problematic, as well, in that items will typically be scored "No" because there is not enough information available. The error patterns by rater are presented in Table 3.3.

Table 3.3: Number of Errors Made by Raters by Error Type

	Trained			Untrained		
	1	2	3	4	5	6
Concern not scored (should have been)	6	0	0	10	10	0
Concern scored (should not have been)	0	23	24	1	2	24

Note. Number of errors out of 65 total concerns to be scored

The Untrained group of raters collectively made more errors of the severe type by not scoring concerns when they should have been scored. Possible reasons for not scoring concerns when they should have been scored include misunderstanding the directions on Part 2 regarding when to score a concern, misunderstanding the information presented on the SDF, and/or not scoring it due to haste. The fact that the Trained group made less errors of the severe type when compared to the untrained group suggests that the training received had a positive impact on reducing this type of error. The Trained group was instructed specifically on the conditions under which concerns should be scored.

When the levels of accuracy by rater were corrected to account for agreements made by chance using Cohen's Kappa, it becomes clear that nearly all of the items on the scale prove to be difficult to score consistently when only minimal (or no) training was received (see Table 3.4.).

Table 3.4: Item Accuracy by Rater (Cohen's Kappa)

	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5	Rater 6	M
Item 1	1.00	1.00	1.00	1.00	0.91	0.91	0.97*
Item 2	1.00	1.00	1.00	1.00	0.64	1.00	0.94*
Item 3	0.35	0.64	1.00	0.46	1.00	0.10	0.59
Item 4	0.67	0.48	0.81	0.78	0.72	0.50	0.66
Item 5	0.52	0.66	0.84	0.31	0.44	0.49	0.54
Item 6	0.64	0.53	1.00	0.67	0.62	0.90	0.73*
Item 7	0.39	0.60	0.78	0.24	0.27	0.90	0.53
Item 8	0.13	0.31	0.49	0.10	0.21	0.23	0.25
Item 9	0.00	0.00	0.00	0.00	0.05	0.08	0.02
Item 10	0.16	0.54	0.56	0.58	0.06	0.38	0.38
Part 3	0.56	0.42	0.58	0.43	0.47	0.61	0.51
M	0.49	0.56	0.73*	0.51	0.49	0.55	0.56

Note. * indicates satisfactory K value $>.70$

As presented in Table 3.4, only Items 1 and 2 were acceptably scored across all (or nearly all) raters. Item 9 resulted in the lowest Kappa values across all raters and received special attention in the revised training protocol. Furthermore, the low levels of accuracy suggest that revisions to the SDF Review Form were necessary. The instructions were subsequently modified so that they were easier to follow. Changes to the format of the Form (location of answer boxes and use of shading) were made so that greater attention was called to integral parts of the Form.

The purpose of the pilot study was to gain information regarding the training needs of individuals familiar with the IC model, but not necessarily experts on completing and evaluating SDFs. A primary question at the time of the pilot study was whether an in-depth training session made a difference on the scoring patterns of raters. The results indicate that the two groups were not significantly different in terms of scoring accuracy within or between groups. However, qualitative analysis reveals that

the Untrained group made more errors of the severe type (concerns not scored when they should have been) compared to the Trained group.

Summary

To summarize the information learned from the pilot study and how it informed the current study design, major findings are presented in Table 3.5.

Table 3.5: Summary of Major Findings from Pilot Study

Finding 1: Revealed which items require additional training

Finding 2: Indicated how much time is needed to score an SDF

Finding 3: Revealed problematic areas of the Review process, such as:

Finding 3a: When to score concerns

Finding 3b: When to stop scoring a concern because there is not enough information present

Finding 3c: That raters tended not to follow the instructions written on the Form

Finding 4: A training manual is needed that targets these problem areas by clarifying how to score each item and how to follow the process, such as when to score a concern.

Revision of the SDF Review Form

The SDF Review Form was modified slightly after completion of the pilot study to aid in more accurate usage of the Form. Given the observation that raters tended not to refer to the instructions on the Forms, the shaded instruction column was moved from the center column to the far left, so that as raters read the form from left to right, the instructions visually appear first. The center column then contains the elements for each item to be scored. Finally, the Y or N answer for each item appears in the far right

column. A second revision was to break Item 4 into four parts, so that each component (general statement of concern, instructional level considered, statement of current performance following baseline, and measurable short-term goal with time specified) would be scored separately. The IC-Lab team collectively agreed during consultation that there was not enough compelling evidence to keep the four components together. Furthermore, additional instructions were added to clarify “instructional level considered” and “statement of current performance following baseline.”

A third revision was to replace the word “Form” with the word “Part,” so that it became more clear the entire SDF Review Form contained three separate parts, rather than forms. The repetition of the word “form” became too confusing for some raters.

A fourth revision was to clarify the instructions at the top of Part 2. When considering whether or not to use Part 2, raters were now instructed to investigate whether a concern has progressed through at least Step 3 of the problem solving process, which means that baseline data has been collected.

The revised SDF Review Form was used in this study and is presented in Appendix B.

Development of Training Manual

A training rehearsal to aid in the development of a Training Manual was conducted in May 2003 in an urban mid-Atlantic public school district. Seven members of various IC-Teams in the school district participated. The purpose of the rehearsal was to develop an organized method of presenting the information learned from the pilot study and to facilitate the development of the Training Manual. The presenter explained the purpose of the overall study and provided background information, such as details of

the pilot study and the results. To gain a sense of the participants' current level of functioning, they were asked about their familiarity with SDFs, the extent to which they used SDFs to document their cases, and to describe anything they found particularly difficult about the SDF itself. All participants indicated that they were familiar with the SDF and used them frequently to document their cases. However, they did not always complete the SDFs in conjunction with their consultees; rather, they would often complete them on their own after meeting with their consultees. Particular problems with the SDF included the collection of baseline data, exactly what "instructional level" means, and what the "where" of the operational definition means (i.e., behavior is recorded in the classroom or behavior is recorded on the SDF). The participants were then given an overview of the SDF Review process as it existed at that time, the different parts of the Review were explained, and then the scoring process was explained item by item using a sample SDF to model the process.

Feedback received from this training rehearsal directly informed the development of the Training Manual and the method of presentation of the training conducted in this study. The participants were positive about the item-by-item method of presentation. They liked the straightforward, explanatory nature of the instruction. They also liked how questions were answered as they arose. One suggestion for improvement was to give examples of frequently made errors in scoring. Another suggestion was to indicate what would be "best practice" in a difficult scoring situation. Both these suggestions informed the inclusion of exemplars at the end of the manual. These exemplars are considered to be difficult to score and are presented along with correctly completed Review Forms.

After reviewing the suggestions made by the training rehearsal participants, a Training Manual was developed using Microsoft Word. The Manual was to contain four sections: an introduction, delineating the purpose of the manual and the intended audience; a description of the Student Documentation Form; an item-by-item explanation of the SDF Review process; and scoring examples. For Section I, the purpose of the Manual was established to be “to train individuals to review the accuracy of Student Documentation Forms. A second purpose of this manual is to determine the impact of the IC-Team process on student goal attainment, thereby linking the IC process to positive student outcomes.” For Section Two, images of the SDF were scanned into a computer so that they could be presented visually, along with explanations of the purpose of each component of the SDF. It was important to review the SDF components and establish the importance of each one because the quality indicators that are incorporated into the SDF are directly reviewed during the SDF Review Process.

Section Three would explain and discuss the SDF Review process. Again, images of the SDF Review Form were scanned into a computer so that they may be presented visually. Using callout boxes, attention was drawn to key components of the Review Form. Then, by recreating sections of the Review Form using Microsoft Word, each item was discussed individually, drawing attention to important instructions and scoring criteria. A sample SDF was used to demonstrate scoring. The sample SDF was scanned in and replicated on each page of the manual, using callout boxes to draw attention to which information was being used to score a particular item.

Finally, Section Four would contain examples of SDFs that were particularly difficult to score, along with corresponding correctly completed Review Forms. The

examples highlighted difficulties that training participants had in the pilot study, such as when to score a concern and how to score particular items.

The training process would consist of providing each participant with a manual, SDFs to review, and blank Review Forms. The manual would first be discussed with the participants, drawing attention to the manual contents. Sample SDFs would be scored together as a group to provide opportunity for practice and corrective feedback.

Procedures

Participants for this study were recruited via electronic email (email) and telephone calls to the IC-Teams Lab's main contact in the participating school district. The email message described participation in the study as an opportunity that would benefit the district's IC-Team project currently underway. The email message also contained a description of the study's purpose, procedures, and potential stipend. Follow-up calls were made to aid in the recruitment of subjects until at least N=5 subjects were obtained. The Lab's school district contact assumed the responsibility for securing a location in the district's Board of Education building to conduct the study.

On the day of the training, the participants were thanked for their time and informed of the purpose of the study and provided with relevant background information, such as the findings obtained from the pilot study conducted previously. The participants were provided initially with the consent forms, which were signed and collected. The participants were also provided with demographic forms requesting their name, title, school, role on IC-Team, type of training received, and the date on which the training was received. This information was used to gauge the experience level of the participants and was kept separate from the participants' data to ensure confidentiality.

The Training Manuals (see Appendix C) were then distributed to the participants. An overview of the manual was presented by describing the content and purpose of the manual in detail. This explanation process lasted one hour and ten minutes. A script was not used, but it was imperative the following key points were highlighted:

- Each item on the Form was discussed in terms of the information being sought and where on the SDF to find it.
- Participants were strongly encouraged to remain objective when scoring and not to judge the quality of the case.
- The “spirit” of the Review Form is whether or not case managers attend to the key indicators on the SDF that lead to positive outcomes. Thus, raters are only to gauge the presence or absence of information, not necessarily the quality of it.
- Participants were instructed carefully on when to score concerns. Concerns were only to be scored when enough information was present on the SDF (i.e., that a concern had progressed through Step 3 on the SDF, which means that baseline data had been collected).
- Each item was discussed individually, explaining the purpose of the item, how to score it, and where on the SDF to find the information needed to score the particular item.
- Item 3 (Consultation Summary) was highlighted to instruct participants that even if every row on the summary was not filled out completely, the item should be scored Y if there is indication that the case manager at least using the summary in part to record meetings. In other words, for several meetings,

there might not be follow up activities listed. This should not be construed as an incomplete summary, but rather benefit of the doubt should be given that perhaps there were no follow up activities for those particular meetings.

- Item 4D (Measurable Short-term Goal with Time Specified) was highlighted to inform participants that even though only one spot is available on the SDF to write in the timeframes for goals set, such a timeframe may or may not apply to all concerns listed on the SDF and thus, judgment would have to be used.
- Item 6 (Baseline Data) was highlighted to alert participants that sometimes case managers do not plot baseline data in the shaded baseline section of the graph. As long as a phase line (vertical line) is indicated, the word “baseline” is written, or some other similar indication is made to delineate baseline data from intervention data, then the item should be scored Y.
- Item 7 (Graph Labels) was highlighted to explain that when graph labels are not clearly written or legible, as long as the rater can determine clearly what is being measured according to other information available, then the item should be scored Y.
- Item 9 (Intervention Implementation) was highlighted to inform participants of how to determine whether or not an intervention has begun. There must be data points beyond baseline plotted to know for sure that an intervention has begun. In some cases, baseline data will not have been plotted. As long as it is clear from other information present on the SDF that an intervention has

begun (e.g., an intervention description is listed to indicate that an intervention has been developed), then the item is scored Y.

- Item 10 (Intervention Evaluation) was highlighted due to difficulty scoring this item in the pilot. It was explained that sufficient data must be present to first warrant an evaluation, i.e., that at least three weeks of intervention data had been collected and plotted. Three weeks is usually enough time to gain a sense of whether or not an intervention is working as intended. If the data being plotted is moving in the desired direction, then likely no evaluation is warranted. However, if the plotline is flat or moving in the opposite direction of that which is intended, then there should be some indication on the SDF that an evaluation has either been conducted or is underway. The raters should look on the graph itself, in the intervention description, or on the consultation summary for some indication, written or visual, that an evaluation of the intervention is being or has been conducted to determine why progress is not occurring. The item is scored Y if: such an evaluation is warranted given the length of time the intervention has been in place and the apparent lack of progress, and is being or has been conducted; or no such evaluation is warranted given the positive progress being made.
- The use of Part 3 was highlighted. Part 3 is only used when Part 2 has been completed for a concern and at least 2 weeks of data have been collected after an intervention has been implemented. Once it is determined that the use of Part 3 applies, the participants were instructed to carefully consider which decision box to use, according to the criteria listed on the form. The decision

boxes lead the rater to use either Goal Attainment Scale A or Scale B. Once the rater has determined which Scale is to be used, a rating is then made based on the progress of the concern. Only one scale is to be used, and only one rating is to be made.

After a ten minute break, a practice scoring session was held, lasting one hour and twenty minutes. Three practice SDFs and sample Systems Tracking sheets were distributed to each participant. Review Forms were available for the participants' use as needed. The participants scored the first practice SDF on their own with no assistance. The participants' scores were compared and corrective feedback was given. The second practice SDF was scored collectively, allowing time for questions and an opportunity for the trainer to model correct scoring behaviors using a think-aloud approach. The third practice SDF was again scored individually. Since a criterion level for training was not set in this study and these initial rater scores were not collected to be analyzed, there is no way to determine how the training session itself impacted the outcomes obtained in this study.

After a five minute break, the scoring session began. Packets of ten SDFs to be scored individually were distributed to each participant, along with the corresponding Systems Tracking sheet. Participants were permitted to ask questions, which were recorded, but not necessarily answered depending on the nature of the question. In general, most questions were answered by encouraging the participants to refer to their manuals for guidance. Participants were provided with up to two hours to complete their scoring. At the conclusion of the scoring session, all data packets were collated, coded,

and collected and the participants were again thanked for their time and assistance with the study.

Data Analysis

Pairwise agreements using Cohen's Kappa were calculated between each individual rater and the expert rater to determine scoring accuracy. Qualitative observations were conducted to evaluate: the types of errors made in scoring by counting the number of instances that concerns were scored when they should not have been and the number of instances that concerns were not scored and should have been; and the suggestions made by participants regarding ways to improve to the training.

CHAPTER FOUR

Results

Introduction

Five raters were provided with a training session that included presentation of a training manual. The review process was explained using the manual as a guide. A practice session was held, in which raters had the opportunity to practice what had been learned and to receive corrective feedback. Levels of agreement were near perfect on the training examples. The raters were then provided with 10 SDFs to review. The results of each rater were compared individually to an expert rater using Cohen's Kappa. These data are presented in Table 4.1. The discussion of the training manual lasted approximately ninety minutes. Opportunity to practice scoring SDFs and to receive feedback lasted approximately one hour, twenty minutes. The scoring session lasted between one hour, fifteen minutes and one hour, fifty minutes. Four of the raters identified themselves as facilitators of their IC-Teams. One member was identified as a trained case manager and IC-Team member.

Analysis of the Results

Research Question 1: Can raters be trained to an acceptable level of agreement when compared to an expert rater (e.g., Cohen's Kappa value > 0.70) for each item on the SDF Review Form?

Cohen's Kappa was calculated for each individual rater compared to the expert rater. Of the 10 SDFs scored, there were 19 possible concerns. The calculated values per item by rater are presented in Table 4.1.

Table 4.1: Item Accuracy by Rater (Cohen's Kappa)

	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5	M
Item 1	1.00	1.00	1.00	1.00	1.00	1.00*
Item 2	1.00	1.00	1.00	1.00	1.00	1.00*
Item 3	0.43	1.00	0.62	0.62	0.41	0.62
Item 4A	1.00	1.00	1.00	1.00	1.00	1.00*
Item 4B	1.00	1.00	1.00	1.00	1.00	1.00*
Item 4C	0.00	0.00	1.00	1.00	1.00	0.60
Item 4D	0.00	0.00	1.00	0.00	1.00	0.40
Item 5	0.37	1.00	0.77	1.00	0.22	0.67
Item 6	0.63	0.88	1.00	0.51	1.00	0.80*
Item 7	0.57	0.73	1.00	0.81	1.00	0.82*
Item 8	1.00	0.65	0.77	0.62	0.69	0.75*
Item 9	1.00	0.36	0.66	0.83	0.85	0.74*
Item 10	0.23	0.33	0.13	0.49	0.47	0.33
Part 3	1.00	0.61	0.77	0.40	0.52	0.66
M	0.66	0.68	0.84*	0.73*	0.80*	0.74*

Note. * indicates satisfactory K value > .70

Four items had perfect agreement across all raters: Items 1 (presence of SDF), Item 2 (demographic information), Item 4A (general statement of concern), and Item 4B (instructional level considered). Each of these items assess components of the SDF that are relatively objective. One item, Item 7 (graph labels), had near perfect agreement, with four out of five raters obtaining satisfactory Kappa values. Four items, Item 4C (statement of current performance), Item 5 (operational definition), Item 6 (baseline), and Item 9 (intervention implementation), had moderate levels of accuracy, with three out of five raters scoring in the acceptable range. Item 3 (consultation summary) and Item 8 (intervention description) had values that were greater than 0.60, approaching the acceptable range. Item 4D (measurable short-term goal with time specified), Item 10 (intervention evaluation), and the use of Form 3 continued to cause difficulty, resulting in unacceptably low Kappa values. Overall, however, the Kappa values obtained in this

study are higher than those values obtained in the pilot study, indicating an increase in the level of accuracy with which raters were scoring the SDFs.

Research Question 2: Which items are the most difficult for raters to score accurately?

Certain items appeared to cause difficulty for the raters in this study. Three out of five raters failed to achieve acceptable Kappa values on Item 4D (measurable short-term goal with time specified). None of the raters achieved satisfactory Kappa values on Item 10 (intervention evaluation). In addition, the use of Part Three continued to cause difficulty, with only two of the five raters achieving acceptable Kappa values.

The raters also appeared to have some difficulty with correctly choosing when to score concerns and when to stop scoring a particular concern, although the instances of incorrectly scoring a concern when it need not be scored, or not scoring a concern when it should indeed be scored, were nearly cut in half when compared to the pilot study. There were 19 total concerns that could possibly be scored in this study. When multiplied across five raters, there were 95 total concerns possible. Four out of 95 concerns were not scored, equaling 4%. Nine out of 95 concerns were scored and should not have been, equaling 9%. When compared to the pilot study (6% of concerns were not scored and should have been; 18% of concerns were scored and should not have been), it is clear that the instances of incorrect scoring were nearly cut in half. The occurrence of nine incorrect stopping points out of 95 total concerns suggests that knowing when to use the discontinue rules on the Form is still a problem for some raters. The instances of scoring errors are presented in Table 4.2.

Table 4.2: Number of Errors Made by Raters by Error Type

	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5
Concern not scored (should have been)	0	2	1	1	0
Concern scored (should not have been)	0	2	1	1	5

Note. Number of errors out of 19 total concerns to be scored

Research Question 3: What suggestions did participants have to improve the training?

Individual raters provided detailed feedback on the usability of the training manual. They provided strong praise for the item-by-item structure of the manual, as well as the clean formatting. Raters also provided suggestions for improvement to both the manual and to the Review form. One suggestion to improve the Manual was to include a sample SDF Review Form in its entirety at the beginning of the manual, to provide a visual overview of the Form and to increase awareness. When the manual was developed, it was assumed that it was to be used in conjunction with the process of reviewing SDFs; thus, a rater would have an actual Review Form in front of him or her. However, this suggestion is well-taken.

A second suggestion was to be clearer in the manual and/or on the Form regarding circling *Yes* or *No* for each item. Although the participants were explicitly instructed to circle *Yes* or *No* on the Review Forms during the initial delivery of instructions, they nevertheless suggested that the inclusion of the words “Circle One” on the Form itself would serve as a reminder. A third suggestion was to clarify what is meant by “labeling” of axes for Item 7. For example, the item asks whether or not the graph in the SDF is clearly labeled. The spirit of this items is whether or not a rater can understand the information that is being graphed as it pertains to the identified concern. Thus, a vertical

axis numbered in groups of 10 and designed with a percent sign clearly indicates a behavior being measured in percentages; assuming this pertains to the identified concern, this item should receive credit for being clearly labeled, even though no words were used to label the axis. Finally, the raters suggested that the phrase “consultation summary” be defined better. This was not terminology that they typically used in regards to the back cover of the SDF.

In addition to making suggestions for improving the manual, the raters in this study also made suggestions to improve the usability of the Form itself. Several suggestions were very specific. For example, several raters observed that the Yes/No component of Items 4A through 4D were not exactly lined up visually with the component where raters are to check of pluses and minuses for presence or absence of information. Another suggestion was to move the location of the Item numbers from the right to the left, as they were having trouble following along with the manual as to which item was which. In Item 6, which examines whether or not baseline data was collected, the item is labeled “Baseline of 1st concern.” This oversight created confusion for some raters and should be changed to read “Baseline of concern being scored” or something similar. Another suggestion was to add a location at the top right-hand corner of each part of the Form to indicate which concern is being reviewed, to ensure that all parts pertaining to a particular set of concerns for an SDF are kept together. The raters suggested using “Caution” signs, just as “Stop” signs were used, to warn of important information. The words “Select one” should be added to the instructions for Part 3, as the raters indicated it was slightly confusing. While the instructions on the form indicate to put a plus sign next to the highest level of goal attainment achieved, some raters would mark all goals that

were achieved. Finally, the raters suggested adding a phrase regarding when to use Part 3 at the bottom of Part Two, to explain better when it is appropriate to go on to Part 3 for a particular concern.

A final suggestion for future research is to devise a method for increasing or encouraging the use of the training manual while raters are scoring SDFs. The raters in this study were observed to ask questions that could have been answered directly by the manual. The raters were also observed to score several SDFs without ever referring to their manual. Methods for encouraging reference to the manual should be explored to increase further the usability of the process as well as the accuracy and consistency of scoring.

CHAPTER FIVE

Discussion

Summary of Results

The results obtained in this study demonstrate that through the use of a structured training process, the accuracy with which raters review SDFs may be enhanced. However, the results also reveal that certain items continue to cause raters difficulty. The items on which raters obtained perfect agreement with an expert rater may be characterized as entirely factual and objective. Thus, when any ambiguity of an item is removed, raters are more likely to score the item accurately and consistently. As long as any subjectivity remains, raters are likely to make scoring errors. This is evidenced by items on the Review in which some raters obtained satisfactory agreement levels while other raters obtained poor agreement levels; such items remain inherently subjective to a degree that continues to make accurate scoring difficult. The results item-by-item are summarized below.

Items with Perfect Agreement

Four items had perfect agreement, defined as achieving a mean Cohen's Kappa value of 1.00. These items are listed below.

- Item 1—Availability of SDF
- Item 2—Demographic Information
- Item 4A—General Statement of Concern
- Item 4B—Instructional Level Considered

These items are all entirely objective. It is clear to the rater where on the SDF to locate the information needed to score each of these items. Little or no interpretation or

judgment on the part of the rater is required. Thus, these items were met with perfect agreement and accuracy in this study and would likely achieve similar results with a different set of raters.

Items with Acceptable Levels of Agreement

Four items had acceptable levels of agreement, defined as achieving a mean Cohen's Kappa value of 0.70 to 0.99. These items are listed below.

- Item 6—Baseline Data (Mean Kappa=0.80)
- Item 7—Graph Labels (Mean Kappa=0.82)
- Item 8—Intervention Description (Mean Kappa=0.75)
- Item 9—Intervention Implementation (Mean Kappa=0.74)

These items require some amount of interpretation on the part of the rater, thus the Kappa values were not perfect. However, given that special attention was paid to these items in both the Training Manual and the training session, it is reasonable that such direct instruction served to improve the levels of agreement on these items as compared to the pilot study. It is important to bear in mind that these items will likely continue to require direct instruction in order to have ratings remain at acceptable levels of agreement.

Items with Marginal Levels of Agreement

Four items had marginal levels of agreement, defined as achieving a mean Cohen's Kappa value of 0.60 to 0.69. These items are listed below.

- Item 3—Consultation Summary (Mean Kappa=0.62)
- Item 4C—Statement of Current Performance Following Baseline (Mean Kappa=0.60)
- Item 5—Operational Definition (Mean Kappa=0.67)

- Part 3 Usage—Goal Attainment (Mean Kappa=0.66)

These items continued to cause raters difficulty because they require a fair amount of subjectivity. These items are subjective in that raters must determine whether the information is present on the SDF in order to score the item. Furthermore, raters appeared to be inconsistent and inaccurate as compared to an expert rater when deciding *how much* information needs to be present to yield a positive (Yes) score.

For example, Item 3 (Consultation Summary) requires the rater to examine the summary table on the back of the SDF and evaluate the extent to which the case manager recorded the date of each contact, indicated a brief summary of the meetings, and indicated follow-up meetings and tasks. Suppose a case manager dated and summarized each meeting, but only indicated follow-up activities for some of the meetings. The expert rater would indicate a “Yes” score for this item, because one could be reasonably satisfied that the case manager was using the Consultation Summary in the spirit with which it was intended. However, the results from this study suggest that raters were not clear on just *how much* information needed to be present. In other words, were a summary and follow-up activities required to be listed for every dated meeting? Even though the “presence versus absence and not quality of information” rule was stressed in the training, it appeared that the inherent subjectivity of some items continued to contribute to scoring inaccuracies.

Item 4C requires the rater to evaluate the statement of current performance following baseline indicated on the SDF. While raters in this study were instructed to consider statements as present even if they were not complete sentences or if they used numbers instead of words (e.g., Statement=45/52 letters known). Such a determine is

subjective and it is likely that raters were not consistent in the use of their judgment across concerns scored.

Item 5 is similar to Item 4C, in that raters must evaluate statements that are written on the SDF. Again, raters were instructed to score items Y as long as something was written on the SDF. The statements did not need to be in complete sentences or of incredibly high quality. It is likely that raters were either too harsh when scoring these items or that they were not consistent in the use of their judgment across concerns scored.

The use of Part 3 was greatly improved over the results obtained in the pilot study. However, they were not raised to an acceptable level of agreement as defined in this study. There were two factors that likely contributed to the results obtained. First, there were only 11 instances out of 19 where Part 3 should have been used. With such a small number of opportunities, each disagreement has a great amount of weight in the overall calculation of Cohen's Kappa values. Second, the disagreements between participant raters and the expert rater were not in whether or not to use Part 3 (as was the case in the pilot study), but rather which Goal Attainment Scale to use and/or which option within the scale to select.

Items with Low Levels of Agreement

Two items had unacceptably low levels of agreement, defined as achieving a mean Cohen's Kappa value of less than 0.60. These items are listed below.

- Item 4D—Measurable Short-term Goal with Time Specified (Mean Kappa=0.40)
- Item 10—Intervention Evaluation (Mean Kappa=0.33)

The difficulty with Item 4D likely lies with the SDF itself. Currently, there is only space on the SDF to write in one timeframe. However, when more than one concern is listed on an SDF, it becomes unclear to which concern the timeframe applies. Thus, raters must make a judgment as to whether the timeframe listed on the SDF applies to the concern being scored. Secondly, it is not uncommon for the timeframe space to be left blank altogether. When the timeframe is left blank, it is possible that raters become confused as to how to score the item, or perhaps they forget about that component of the item, resulting in a disagreement between the rater in question and the expert rater.

Item 10 is the most subjective item on the scale. It requires raters to make inferences beyond the information presented to them on the SDF, thereby greatly increasing the opportunities for disagreement. Raters must evaluate the data presented on the SDF graph, compare that data to the goals set and the intervention designed, and make a determination: first, whether there is enough data present to score the item and second, whether progress is being made in the opposite direction of that which was intended to warrant an evaluation. Finally, there is only a Yes or No option. It is possible that enough data is present and progress is being made in the desired direction, thus no evaluation is needed. However, there is no option to score “Not Applicable” or “No intervention needed.” Adding a third scoring option might help to improve scoring agreements. However, it also might increase the opportunity for disagreements, as well. Great attempts were made in this study to reduce the subjectivity of this item by clarifying the scoring criteria for the item and providing both practice opportunities and exemplars. However, the subjectivity inherent in the item still remains.

A noticeable change from the pilot results to the current study results is the extent to which raters in this study correctly determined which concerns were “scorable.” The error rates on deciding when to score a concern in this study were nearly half the rates obtained in the pilot, suggesting that the emphasis placed on this point in the training package had a positive impact on rater scoring decisions.

Thus, when five raters were provided with a detailed training manual that outlined the SDF Review process by discussing the form item by item using examples, and were provided with a structured training process, an increase in levels of accuracy compared to an expert rater were noted, when compared to results obtained in a pilot study that did not include a structured training process. Overall improvement on item Kappa values from the pilot study suggest that the training manual and training session were successful in bringing raters to an acceptable level of agreement.

It seems unlikely that the SDF Review Form could stand on its own without the guidance of both the training manual and the structured training session. The training manual and training session clearly resulted in improved scoring accuracy; however, difficulties continued to persist. The questions that arose during the training session also suggest that raters would benefit from a structured training session and might be confused without it. Finally, the raters were observed during the scoring session to ask questions that could have been answered by referring to the manual, yet they typically did not refer to their manuals.

Limitations

This study provided important information about the usability of the SDF Review Form and the amount of effort potentially required to bring raters to an acceptable level

of accuracy. However, this study also has several limitations affecting the generalizability of the results to other forms of documentation and other consultation models. Given that only a small number of raters were trained and evaluated with respect to their scoring accuracy, it is difficult to generalize their scoring habits to all scorers. Secondly, a relatively small number of SDFs were reviewed to estimate the amount of training needed to improve scoring accuracy. Clearly, scoring hundreds of SDFs with direct instruction and feedback would increase scoring accuracy; however, due to time constraints and inevitable fatigue, such a design was not feasible. Thirdly, some SDFs will naturally be difficult to score, due to illegibility of handwriting and/or poor photocopying, as most SDFs are completed in pencil, photocopied by the school, and then submitted to the IC-Team Lab.

Fourthly, the use of Cohen's Kappa to compute levels of agreement provides a more accurate measure by accounting for agreements made by chance. However, due to the method of calculating Cohen's Kappa values and the small number of opportunities to have agreement (19 concerns total were scored in this study), each disagreement has a fair amount of weight in the overall calculations. Thus, the items that achieved low levels of agreement likely would have had higher levels of agreement if more concerns had been scored, allowing for more opportunities for agreement.

The results presented here could possibly have been related to individual differences in the raters, or could have been a function of the SDFs selected for review, and not a factor of the training manual and/or process. Also, the scoring session was held immediately after the training was delivered. Thus, the long-term effects of the training are not known from this particular study. Furthermore, the study was conducted on one

particular day by one particular trainer. Had this study been conducted on a different day by a different trainer, it is possible that the results might have varied. Thus, given these limitations, the results should be generalized with caution.

Recommendations for Further Research

Despite the limitations, this study revealed important information about the positive impact that a structured training process may have on scoring accuracy and yielded some suggestions for areas of further investigation. First, the long-term effects of the training process used here should be explored. The same participants used in this study could be asked to volunteer to score SDFs after a period of time has passed (for example, six months). Their scores could be compared to the ones obtained here and examined for any increases or decreases. Or, a new study could be conducted in which participants are trained to use the form, then asked to score SDFs after a period of time has passed.

Second, the manual could be revised and retested, incorporating the suggestions offered by the study participants, as well as the information revealed by the study results as to which items continue to cause scoring difficulties. These issues could be addressed and focused upon in a new training presentation. Additionally, future researchers should consider setting a criterion level for accuracy during practice sessions to inform subsequent training sessions, as well as to potentially yield data on how many practice items are needed to train raters successfully.

Finally, the SDF Review Form itself could be revised and tested to investigate the effects it may have on scoring accuracy, as well as any effects on rater acceptability.

Implications for Practice

The results of this study in terms of implications for school psychology practice suggest that a training package comprised of detailed instruction and a companion training manual can increase the accuracy of reviewing SDFs for key indicators. Training is clearly required in order to obtain satisfactory levels of agreement. On the positive side, scoring was improved through the training procedures implemented in this study. However, for several of the items, the procedures were not sufficient. Based upon the results obtained in this study, the following recommendations may be made to improve the SDF Review Process, increasing the likelihood of obtaining consistent, reliable, and accurate scoring across raters.

The first recommendation is to revise the SDF Review Forms to improve the layout and readability of the forms.

- The Yes/No component of Items 4A through 4D should be lined up visually with the component where raters check the plusses and minuses for presence or absence of information.
- The item numbers should be moved from the right to the left
- Item 6 should be reworded to read “Baseline of concern being scored.”
- A location should be added at the top right-hand corner of each part of the Review Form to mark a code of some type to help keep together all parts of the Review Form for a particular case.
- The use of “Caution” signs might be used to help raters attend to important pieces of information just as the “Stop” signs are used
- The words “Select One” should be added to the instructions for Part Three

- A phrase clarifying when to use Part 3 should be added to the end of Part Two.

The second recommendation is to make revisions to the manual, incorporating both feedback from the study participants as well as information obtained from the results of this study. Such revisions could include:

- Beginning the manual with a visual representation of the different parts of the SDF Review Form;
- Clarifying the instructions to circle Yes or No when scoring each item; and
- Clarifying terminology that is currently considered subjective, such as what is meant by “consultation summary” in Item 3 and what is meant by “labeling of axes” in Item 7. Operationally defining these terms will help to reduce the subjectivity that can negatively affect the scoring procedures.
- For Item 4D (measurable short-term goal with time specified), Item 10 (intervention evaluation), and the use of Part Three, the scoring criteria should be clarified among the IC-Lab project directors and then incorporated into the manual text and subsequent training protocols.
- For Item 10 (Intervention Evaluation), the value of the item to the overall Review process should be considered within the IC-Team Lab. The item is persistently difficult to score. Clarifying precisely how to score the item would be beneficial. Another suggestion might be to add a Not Applicable or No Evaluation Needed option to the current scoring options, allowing for instances when enough data is present to warrant an evaluation, but progress is being made in the desired direction thus no evaluation is needed.

The third recommendation is to provide additional training on the use of the SDF. Questions that arose during the pilot study concerned how to collect and measure data when obtaining baseline, what was the exact meaning of “instructional level,” and why the “where” of the operational definition was needed. Additionally, participants in the current study deliberated over the meaning of “consistently” in the phrase “date consistently obtained” when referring to goals obtained. These questions indicate that there is confusion when using the SDF to document the progress of a case, and suggest that cases that might otherwise reveal positive outcomes are being negatively affected by the difficulties in the documentation process, or alternatively, indicate that the review of the SDF process is being complicated by these confusing elements.

The fourth recommendation is to consider a revision to the SDF itself. The participants in this study suggested that the mention of “Student at Instructional Level” in Step 2 of the SDF be moved to follow Step 3 (observable/measurable statement of current performance following baseline), as they typically did not ascertain a student’s instructional level until baseline data was collected.

Finally, the fifth recommendation is to ensure that individuals using the SDF Review Forms receive the manual in conjunction with a training and practice session. There was little evidence in this study to suggest that the manual, as it is currently written, would be sufficient to ensure scoring accuracy. However, with the addition of a clearly written training protocol, it is possible that the manual could function as a stand-alone procedure. In addition to a structured training process, it is recommended that frequent reliability checks are conducted to ensure that each item is being scored as intended. These reliability checks could be conducted informally within a particular

school team by comparing each others' ratings, the ratings could be sent to the IC-Lab to be compared to a "scoring expert," or the ratings could be evaluated in the context of a "refresher course" for trained individuals in need of additional training, reminders, and feedback.

While the time and effort required to participate in such a training may deter busy educators from using such a tool in their everyday practice, it is necessary currently to ensure accurate scoring of the SDF. Additional research on this topic to improve both the Review Form and the Training Manual, and efforts to streamline and simplify the entire process, would be beneficial and increase the likelihood of practitioners incorporating it into their daily practice.

APPENDIX A

Student Documentation Form (SDF)

SDF Front Cover

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM

Student's Name _____ Grade _____ Date of Birth _____ Date Started _____
 Teacher's Name _____ Case Manager _____ School _____

GOAL ATTAINMENT SCALE (GAS)

Step 1: Initial description of concern					
Step 2: Prioritize	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)
Step 3: Observable/measurable statement of current performance (following baseline)	Date collected _____	Date collected _____	Date collected _____	Date collected _____	Date collected _____
Step 4: Short-term goal: Expected performance in _____ weeks (4-6 weeks)	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____
Step 5: Interim goal: Expected behavior in _____ weeks	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____
Step 6: Long-term goal: Expected behavior in _____ weeks	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____

APPENDIX B

Student Documentation Form (SDF) Review Form

STUDENT DOCUMENTATION FORM REVIEW- (FORM 1)

System's Tracking Information:

SDF Review Form 1 should be completed for each case listed on the IC-Team System's Tracking Form. SDF Review Form 1 should be completed even if there is no SDF available to review for that case. The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

Case manager's Name: _____

Teacher's Name: _____

Student Name: _____

School Name: _____

Request/Referral Date: _____

Date of 1st Contact/ Contracting: _____

Final Stage of problem-solving indicated: _____

Last date entry was made on tracking form: _____

Indication whether case was closed: _____

Reason for case closure: _____

COMMENTS:

General SDF Scoring:

SDF Review Form 1 should be completed for each case listed on the IC-Team System's Tracking Form. Item 1 of SDF Review Form 1 should be completed even if there is no SDF available to review for that case.

Indicate whether the teacher or case manager has a SDF available for the case. Place a "+" if available or a "-" if not available.	SDF Available _____	Item 1 Score Y (if +) N (if -)
Review the 1 st Page of the SDF for the presence of the following information. Place a "+" if the information is present or a "-" if not present.	Case manager's Name: _____ Teacher's Name: _____ Student Name: _____ Date Started: _____ COMMENTS:	Item 2 Score Y (if all +) N (if any -)
Review SDF consultation summary on back of form. Indicate whether the information is present or absent. "+" if present or "-" if not present.	SDF Consultation Summary: Date of each contact: _____ Brief summary of consultation: _____ Follow-up meetings and tasks: _____	Item 3 Score Y (if all +) N (if any -)

See SDF Review Form 2 to determine whether a SDF Concern can be scored.

STUDENT DOCUMENTATION FORM REVIEW- (Part 2)




Selecting the SDF Concern Area to Score:

An SDF Part 2 should be completed for any case that has an SDF and has a concern area that has completed at least Step 3 of the Problem Analysis Stage (see Steps 1-6 on the SDF). The first concern to be scored should be that which has progressed furthest through the problem-solving stages as indicated by documentation on the SDF. Note: There may be up to four Part 2s per SDF (one for each concern that has progressed through the problem-solving stages enough to be scored).

Write the general description of the concern to be reviewed.	Concern area to be scored:	
Review the GAS (on page 1 of the SDF) for the presence ("+" or absence ("-")) of the following information for the concern being scored NOTE: Optional information should be recorded but not included within the scoring of the item.	A) General Statement of Concern _____ B) Instructional level considered _____ (Is Y or N circled?) C) Statement of current performance following baseline _____ (Statement in words or numbers, as long as it is clearly a statement of baseline) D) Measurable short-term goal with time specified _____ Optional: Are there Interim / long-term goals with time specified? (_____) _____ COMMENTS:	Item 4A Score Y N Item 4B Score Y N Item 4C Score Y N Item 4D Score Y N
Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+") or absent ("-"). NOTE: Optional information should be recorded but not included within the scoring of the item.	Operational Definition: What specific behavior will be recorded: _____ When will the behavior be recorded: _____ Optional: Where will the behavior be recorded (_____) _____ COMMENTS:	Item 5 Score Y (if all +) N (if any -)
Review the graph for the concern (page 2 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1st Concern: 0 baseline points recorded: _____ 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: _____ COMMENTS:	Item 6 Score Y (if 2 or more baseline points recorded) N (if less than 2 baseline points recorded)

SDF Part 2 Continues on back

STUDENT DOCUMENTATION FORM REVIEW- (FORM 2 Continued)

<p>Review the graph for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-"). NOTE: Score "+" if unlabeled axis could reasonably be identified from information within the operational definition.</p>	<p>Graph Labels: Clearly marked vertical axis: _____ Clearly marked horizontal axis: _____ COMMENTS:</p>	<p>Item 7 Score Y (if all +) N (if any -)</p>
<p> Stop scoring here if case has not begun Intervention Design</p>		
<p>Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-"). NOTE: Score "+" if intervention described on accompanying documentation.</p>	<p>Intervention Description: What of intervention: _____ When of intervention: _____ Who of Intervention: _____ COMMENTS:</p>	<p>Item 8 Score Y (if all +) N (if any -)</p>
<p> Stop scoring here if case has not begun Intervention Implementation</p>		
<p>Review the graph, intervention description and consultation summary to determine if there is an indication ("+") of intervention implementation.</p>	<p>Intervention Implementation: Intervention implementation indicated on graph or on SDF Consultation Summary. _____ COMMENTS:</p>	<p>Item 9 Score Y (if +) N (if -)</p>
<p> Stop scoring here if case has not begun Intervention Evaluation</p>		
<p>Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+"). Intervention should be evaluated within 6 weeks of implementation. NOTE: if data indicates progress toward stated goal, no indication of evaluation required. However, if progress is limited or declining, review SDF for indication of change in intervention.</p>	<p>Intervention Evaluation: Data (beyond baseline) made weekly or regular basis with rationale provided: _____ Intervention Evaluation indicated: _____ COMMENTS:</p>	<p>Item 10 Score Y (if all +) N (if any -)</p>
<p>See SDF Review Form 3 to determine whether Goal Attainment can be scored.</p>		

GOAL ATTAINMENT SCALING- (FORM 3)

Goal Attainment for the SDF Concern Area:

Goal Attainment Scaling (Form 3) should be used for concerns in which SDF Review Form 2 has been completed and there are more than two weeks of data (or two data points) present following intervention implementation. Review the following Decision Boxes and determine which best describes the characteristics for the concern reviewed. Use the Goal Attainment Scale indicated in that Decision Box.

Decision Box #1:

- 0 baseline indicated
- no short-term goal
- no data collected following intervention implementation

No Goal Attainment

Decision Box #2:

- 1-3 baseline points indicated
- no short-term, no interim/ long-term goals
- data collected following intervention implementation

Use Goal Attainment Scale A

Decision Box #3:

- 1-3 baseline points indicated
- short-term or interim/ long-term goal indicated
- data collected following intervention implementation

Use Goal Attainment Scale B

Goal Attainment Scales:

Review the goal attainment scale selected. For Scale A, indicate ("+") the best description of goal attainment for the concern reviewed. For Scale B, indicate ("+") the highest or lowest level of goal attainment achieved. For example, if the short-term and interim goals were both met, place a "+" next to the interim goal.

Goal Attainment Scale A

- _____ Progress above the baseline
- _____ Progress below the baseline
- _____ Progress consistent with baseline

Goal Attainment Scale B

- _____ Long-term goal met
- _____ Interim-goal met
- _____ Short-term goal met
- _____ Trend toward goal
- _____ Trend consistent with baseline
- _____ Trend below baseline

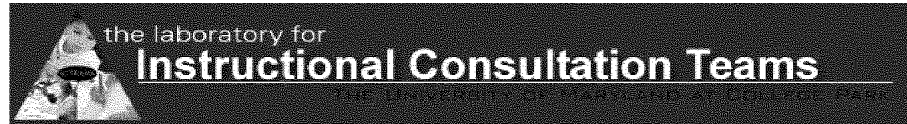
Selecting additional concerns to review:

If the SDF being reviewed has additional concern areas that were addressed within the case, repeat the review process for the next concern using SDF Forms 2 and 3.

Staple or clip SDF Review Forms from the same case together!

APPENDIX C

Training Manual



**SDF Review Process:
Training Manual**

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I. INTRODUCTION

Purpose of manual

The purpose of this manual is to train individuals to review the accuracy of Student Documentation Forms. A second purpose of this manual is to determine the impact of the IC-Team process on student goal attainment, thereby linking the IC process to positive student outcomes.

Intended audience

This manual is intended for individuals who have been trained and have functioned or are currently functioning as IC-Team Facilitators. These individuals have participated in the IC-Team Facilitator training module and have been coached in the facilitation process. They are likely also responsible for conducting training sequences on their own IC-Teams.

II. THE STUDENT DOCUMENTATION FORM (SDF)

A study by Flugum and Reschly (1994) identified “quality indicators,” or critical elements, that when present, may be directly linked to positive student outcomes. These indicators include:

- Operationally defining the problem behavior
- Directly measuring the behavior
- Establishing a clear intervention plan
- Implementing the plan with integrity
- Collecting and graphing the data
- Comparing the data to baseline

Each of these elements is a focus of one or more stages in the IC process. Furthermore, each of these elements must be documented accurately and consistently on the Student Documentation Form in order to link the IC process to positive student outcomes with any degree of confidence.

The pages of the Student Documentation Form are depicted below.

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM				
Student's Name _____	Grade _____	Date of Birth _____	Date Started _____	
Teacher's Name _____	Care Manager _____	School _____		
GOAL ATTAINMENT SCALE (GAS)				
Step 1: Initial description of concern				
Step 2: Priority	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (teacher at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)
Step 3: Observable/measurable statement of current performance (following baseline)	Date collected _____	Date collected _____	Date collected _____	Date collected _____
Step 4: Short-term goal: Expected performance in _____ weeks (4-6 weeks)	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____
Step 5: Interim goal: Expected behavior in _____ weeks	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____
Step 6: Long-term goal: Expected behavior in _____ weeks	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____	Date consistently attained _____

The cover of the SDF prompts case managers to attend to the first quality indicator: “operationally defining the problem behavior.” The cover also prompts case managers to prioritize up to four behaviors, consider the instructional level of the student, and to set goals with appropriate time frames.

III. THE SDF REVIEW

Given that the SDF provides for documentation of quality indicators that can lead to positive student outcomes, it is important to have a method by which one may evaluate the SDF for accurate completion. The SDF Review form provides such a checklist. The purpose of the form is to evaluate the extent to which quality indicators are present or absent from the SDF. The form is split into three parts, each explained in turn below.

Part 1—SDF Availability and General Use

Part 1 reviews tracking information obtained from the school's Systems Tracking sheet. Information from Part 1 allows the reviewer to determine whether an SDF is present for each case on the tracking sheet, identify basic demographics about the case, and determine the number of meetings that were held during the case.

STUDENT DOCUMENTATION FORM REVIEW- (Part 1)

System's Tracking Information:
 SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. SDF Review Part 1 should be completed even if there is no SDF available to review for that case. The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

Case manager's Name: _____
 Teacher's Name: _____
 Student Name: _____
 School Name: _____
 Request/Referral Date: _____
 Date of 1st Contact/ Contracting: _____
 Final Stage of problem-solving indicated: _____
 Last date entry was made on tracking form: _____
 Indication whether case was closed: _____
 Reason for case closure: _____

COMMENTS: _____

General SDF Scoring:
 SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. Item 1 of SDF Review Part 1 should be completed even if there is no SDF available to review for that case.

Indicate whether the teacher or case manager has a SDF available for the case. Place a "+" if available or a "-" if not available.	SDF Available	Item 1 Score
	_____	Y (if +) N (if -)

Review the 1 st Page of the SDF for the purposes of the following information. Place a "+" if the information is present or a "-" if not present.	Case manager's Name: Teacher's Name: Student Name: Date Started:	Item 2 Score
	_____ _____ _____ _____	Y (if all +) N (if any -)

Review SDF consultation summary on back of form. Indicate whether the information is present or absent. "+" if present or "-" if not present.	SDF Consultation Summary: Date of each contact; Brief summary of consultation; Follow-up meetings and tasks.	Item 3 Score
	_____ _____ _____ _____	Y (if all +) N (if any -)

See SDF Review Form 2 to determine whether a SDF Concern can be accorded.

Determine whether an SDF is available.

Use the SDF back cover here.

Use the systems tracking sheet here.

Use the SDF cover here.

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Part 1—SDF Availability and General Use (continued)

Item 1—Availability of SDF

Indicate whether the teacher or case manager has a SDF available for the case. Place a "+" if available or a "-" if	SDF Available _____	Item 1 Score Y (if +) N (if -)
---	---------------------	---

Y—If an SDF is available for the case listed on the Systems Tracking Sheet, score "Y" and **continue**.

N—If an SDF is not available, score "N" and **discontinue** scoring for this case.

Item 2—Demographic Information

Review the 1 st Page of the SDF for the presence of the following information. Place a "+" if the information is present or a "-" if not present.	Case manager's Name: _____ Teacher's Name: _____ Student Name: _____ Date Started: _____ COMMENTS: _____	Item 2 Score Y (if all +) N (if any -)
--	--	---

Mark each item with a "+" or "-" as appropriate for the case being scored.

Y—Score "Y" if all 4 items are marked "+."

N—Score "N" if any item is marked "-."

Part 1—SDF Availability and General Use (continued)

Item 3—Consultation Summary		
Review SDF consultation summary on back of form. Indicate whether the information is present or absent. "+" if	SDF Consultation Summary: Date of each contact; _____ Brief summary of consultation: _____ Follow-up meetings and tasks: _____	Item 3 Score Y (if all +) N (if any -)
Use the SDF back cover to determine whether these elements have been completed. Mark with "+" or "-."		
Y—Score "Y" if all 3 items are marked "+."		
N—Score "N" if any item is marked "-."		

Part 2—SDF Accuracy

Part 2 is a two-page (one page double-sided) form and examines the extent to which an appropriate intervention has been designed and implemented, and whether adequate data has been collected.

STUDENT DOCUMENTATION FORM REVIEW- (Part 2)		
<p>Selecting the SDF Concern Area to Score: An SDF Part 2 should be completed for any case that has an SDF and has a concern area that has completed at least Step 3 of the Problem Analysis Stage (see Steps 1-6 on the SDF). The first concern to be scored should be that which has progressed furthest through the problem-solving stages as indicated by documentation on the SDF. Note: There may be up to four Part 2s per SDF (one for each concern that has progressed through the problem-solving stages enough to be scored).</p>		
Write the general description of the concern to be reviewed.	Concern area to be scored:	
<p>Review the GAS (on page 1 of the SDF) for the presence ("+" for absence ("-" and the following information for the concern being scored</p> <p>NOTE: Optional information should be recorded but not included within the scoring of the item.</p>	A) General Statement of Concern _____	Item 4A Score Y
	B) Instructional level considered (by Y or N circled) _____	N
	C) Statement of current performance following baseline (Statement in words or numbers, as long as it is clearly a statement of baseline) _____	Item 4B Score Y
	D) Measurable short-term goal with time specified _____	Item 4C Score Y
	Optional: Are there Interim / long-term goals with time specified? () _____	Item 4D Score Y
COMMENTS:		
Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+" or absent ("-").	Operational Definition: What specific behavior will be recorded: _____ When will the behavior be recorded: _____ Optional: Where will the behavior be recorded () _____	Item 5 Score Y (if all +) N (if any -)
COMMENTS:		
Review the graph for the concern (page 1 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1 st Concern: 0 baseline points recorded: _____ 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: _____	Item 6 Score Y (if 2 or more baseline points recorded) N (if less than 2 baseline points recorded)
COMMENTS:		
SDF Part 2 Continues on back		

STUDENT DOCUMENTATION FORM REVIEW- (Part 2 Continued)		
Review the graph for the concern (page 1 of SDF). Record whether the indicated information is present ("+" or absent ("-").	Graph Labels: Clearly marked vertical axis _____ Clearly marked horizontal axis: _____	Item 7 Score Y (if all +) N (if any -)
COMMENTS:		
STOP Stop scoring here if case has not begun Intervention Design		
Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+" or absent ("-").	Intervention Description: What of intervention: _____ When of intervention: _____ Who of intervention: _____	Item 8 Score Y (if all +) N (if any -)
COMMENTS:		
STOP Stop scoring here if case has not begun Intervention Implementation		
Review the graph, intervention description and consultation summary to determine if there is an indication ("+" of intervention implementation.	Intervention Implementation: Intervention implementation indicated on graph or on SDF Consultation Summary. _____	Item 9 Score Y (if +) N (if -)
COMMENTS:		
STOP Stop scoring here if case has not begun Intervention Evaluation		
Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+"). Intervention should be evaluated within 6 weeks of implementation.	Intervention Evaluation: Data (beyond baseline) made weekly or regular basis with rationale provided: _____ Intervention Evaluation indicated: _____	Item 10 Score Y (if all +) N (if any -)
COMMENTS:		
See SDF Review Part 3 to determine whether Goal Attainment can be scored.		

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There are strict criteria for when you have enough data on the SDF to score a concern. Refer frequently to the instructions at the top of Part 2.

Part 2 is used for each concern listed on the SDF for a particular case, as long as it has progressed through Step 3. Thus, there may be up to four Part 2's per SDF, depending on the number of concerns addressed in the case.

Part 2—SDF Accuracy (continued)

Deciding Whether to Score a Concern

Use a separate Part 2 for every concern listed on the SDF. Note that an SDF has room for up to four separate concerns. Not all concerns are addressed in the course of a case. One concern may be followed to completion, or multiple concerns may be addressed simultaneously.

A concern should be scored when it has progressed through at least “Step 3” on the front cover of the SDF. This means that a problem has been identified in observable, measurable terms and baseline data has been collected.

2

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM

Student's Name: [redacted] #12 Grade 1 Date of Birth 1/30/93 Date Started 2/20/00
 Teacher's Name: [redacted] Case Manager: [redacted] School: [redacted]

GOAL ATTAINMENT SCALE (GAS)

Step 1: Initial description of concern.	Letter Names	Letter Sounds	Dolch words	
Step 2: Prioritize	Importance 1 2 3 4 (student at instructional level? Y N) 3	Importance 1 2 3 4 (student at instructional level? Y N) 2	Importance 1 2 3 4 (student at instructional level? Y N) 3	Importance 1 2 3 4 (student at instructional level? Y N) 4
Step 3: Observable/measurable statement of current performance (following baseline)	[redacted] knows 27/26 letter names. Date collected 4/3/00	[redacted] knows 21/15 letter sounds. Date collected 4/27		
Step 4: Short-term goal: Expected performance in 4 weeks (4-6 weeks)	[redacted] will know 26/26 letter names. Date consistently attained 5/22/00	[redacted] will know 30 letter sounds. Date consistently attained 6/13/00		
Step 5: Interim goal: Expected behavior in 8 weeks	Date consistently attained _____	[redacted] will know 40 letter sounds. Date consistently attained _____		
Step 6: Long-term goal: Expected behavior in 12 weeks	Date consistently attained _____	[redacted] will know 90 letter sounds. Date consistently attained _____		

Scorable concern

Scorable concern

NOT scorable: not enough information present; concern has not progressed through Step 3.

Part 2—SDF Accuracy (continued)

Item 4A through Item 4D

<p>Review the GAS (on page 1 of the SDF) for the presence ("+") or absence ("-") of the following information for the concern being scored</p> <p>NOTE: Optional information should be recorded but not included within the scoring of the item.</p>	A) General Statement of Concern _____	<p>Item 4A Score Y N</p> <p>Item 4B Score Y N</p> <p>Item 4C Score Y N</p> <p>Item 4D Score Y N</p>
	B) Instructional level considered _____ <i>(Is Y or N circled?)</i>	
	C) Statement of current performance following baseline _____ <i>(Statement in words or numbers, as long as it is clearly a statement of baseline)</i>	
	D) Measurable short-term goal with time specified _____ <i>Optional: Are there Interim / long-term goals with time specified? ()</i>	

Example (for the concern "Letter Names")

**Optional items are not included in the Y/N total item score.

2

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM

Student's Name _____ #12 Grade 1 Date of Birth 4/30/93 Date Started 9/20/00
 Teacher's Name _____ Case Manager _____ School _____

GOAL ATTAINMENT SCALE (GAS)

Step 1: Initial description of concern	Letter Names	Letter Sounds	Doich words	
Step 2: Prioritize	Importance 1 2 3 4 (student at instructional level: Y (3))	Importance 1 2 3 4 (student at instructional level: Y (3))	Importance 1 2 3 4 (student at instructional level: Y (3))	Importance 1 2 3 4 (student at instructional level: Y (N))
Step 3: Observable/measurable statement of current performance (following baseline)	_____ knows 20/26 letter names. Date collected 11/3/00	_____ knows 15 letter sounds Date collected 11/11	Date collected _____	Date collected _____
Step 4: Short-term goal: Expected performance in 4 weeks (4-6 weeks)	_____ will know 26/26 letter names Date consistently attained 5/22/00	_____ will know 30 letter sounds Date consistently attained 6/13/00	Date consistently attained _____	Date consistently attained _____
Step 5: Interim goal: Expected behavior in 8 weeks	Date consistently attained _____	_____ will know 60 letter sounds Date consistently attained _____	Date consistently attained _____	Date consistently attained _____
Step 6: Long-term goal: Expected behavior in 12 weeks	Date consistently attained _____	_____ will know 93 letter sounds Date consistently attained _____	Date consistently attained _____	Date consistently attained _____

Item 4A: Score "Y" here because a statement is written.

Item 4B: Score "Y" because a circled item indicates instructional level was considered.

Item 4C: Score "Y" because an observable, measurable statement is indicated.

Item 4D: Score "Y" because a relevant goal and a timeframe are specified.

Part 2—SDF Accuracy (continued)

Item 5—Operational Definition

Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+") or absent ("-").	Operational Definition: What specific behavior will be recorded: _____	Item 5 Score Y (if all +) N (if any -)
	When will the behavior be recorded: _____ <i>Optional: Where will the behavior be recorded</i> (_____)	

Item 6—Baseline Data

Review the graph for the concern (page 2 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1st Concern: 0 baseline points recorded: _____ 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: _____	Item 6 Score Y (if 2 or more baseline points recorded) N (if less than 2 baseline)
	COMMENTS: _____	

Example:

OPERATIONAL DEFINITION OF ACADEMIC/BEHAVIORAL PERFORMANCE: *Drawn 4/1*

What specific academic / behaviors will be recorded? *Knowledge of letter sounds*

When will the behavior be recorded? *1-2:30*

Where will the behavior be recorded? *classroom*

Baseline (Step 3)

Describe intervention design and materials	When and how often?	Persons responsible?	Motivational strategies?
1. <i>test weekly (flashcards)</i>	<i>weekly (Mon)</i>	<i>teacher</i>	<i>knows letters</i>
2. <i>make own set of cards - for unknown letters</i>	<i>make cards</i>	<i>teacher</i>	<i>own cards</i>
<i>for - church</i>	<i>review</i>	<i>1 hr. tutor</i>	<i>teacher</i>
<i>review names</i>	<i>Tues-Thurs</i>	<i>teacher</i>	<i>extra help</i>

Item 5 would be scored "Y" because the "what" and the "when" of the behavior are indicated.

Item 6 would be scored "Y" because three baseline points are indicated.

Part 2—SDF Accuracy (continued)

Item 7—Graph Labels

<p>Review the graph for the concern (page 2 of SDF). Record whether the indicated information is present ("+" or absent "-").</p>	<p>Graph Labels: Clearly marked vertical axis: _____ Clearly marked horizontal axis: _____</p>	<p>Item 7 Score Y (if all +) N (if any -)</p>
---	---	--

Example:

OPERATIONAL DEFINITION OF ACADEMIC/BEHAVIORAL PERFORMANCE: Priority # 1
 on GAS

What specific academic / behaviors will be recorded? knowledge of letter names

When will the behavior be recorded? weekly

Where will the behavior be recorded? classroom

BASELINE (STEP 3)

Describe intervention design and materials	When and how often?	Persons responsible?	Motivational strategies?
1. test weekly (flashcards)	weekly (Mon)	teacher	know letters
2. make own set of cards for unknown letters	make cards	teacher	own cards
3. review unknown names	1 hr. Tues, Thurs	teacher	extra help

Item 7 would be scored "Y" because both the vertical and the horizontal axes are labeled.

STOP Discontinue Rule

If the concern being scored has not begun the Intervention Design phase, then discontinue scoring this particular concern and move on to the next concern. Individuals should not be penalized by receiving Ns for subsequent Items that do not apply.

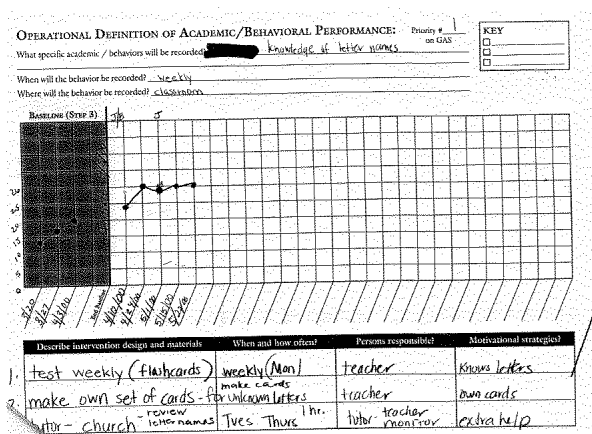
If the case has an Intervention Design indicated for the concern being scored, proceed to Item 8.

Part 2—SDF Accuracy (continued)

Item 8—Intervention Description

<p>Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+" or absent)</p>	<p>Intervention Description:</p> <p>What of intervention: _____</p> <p>When of intervention: _____</p> <p>Who of Intervention: _____</p> <p>COMMENTS:</p>	<p>Item 8 Score</p> <p>Y (if all +)</p> <p>N (if any -)</p>
	<p>_____</p> <p>_____</p> <p>_____</p>	

Example:



Item 8 would be scored "Y" because the "what," the "when," and the "who" of the intervention design are all indicated.



Discontinue Rule

If the concern being scored has not begun Intervention Implementation, discontinue scoring. Examine the graph closely, as well as the consultation summary, for indication of intervention implementation.

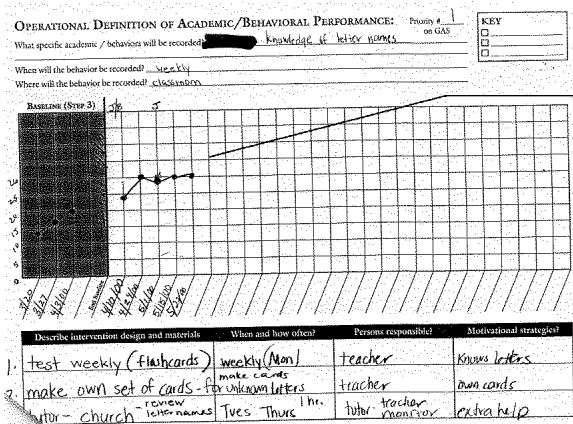
If Intervention Implementation has begun, proceed to Item 9.

Part 2—SDF Accuracy (continued)

Item 9—Intervention Implementation

Review the graph, intervention description and consultation summary to determine if there is an indication ("+") of intervention	<p>Intervention Implementation: Intervention implementation indicated on graph or on SDF Consultation Summary.</p> <p>COMMENTS: _____</p>	<p>Item 9 Score</p> <p>Y (if +)</p> <p>N (if -)</p>
---	--	--

Example:



Item 9 would be scored "Y" because implementation of the intervention is indicated on the graph by the plotting of data points beyond baseline.

STOP Discontinue Rule

Interventions implemented for a particular concern should typically be evaluated within 6 weeks of implementation to determine if the intervention designed is working as intended.

If the intervention has been in place for less than 6 weeks as indicated on the graph, discontinue scoring.

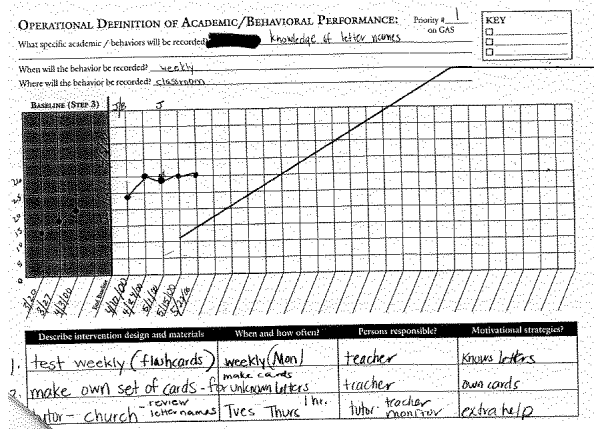
If the intervention has been in place for at least 6 weeks, proceed to Item 10.

Part 2—SDF Accuracy (continued)

Item 10—Intervention Evaluation

<p>Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+"). Intervention should be</p>	<p>Intervention Evaluation: Data (beyond baseline) made weekly or regular basis with rationale provided: _____ Intervention Evaluation indicated: _____</p>	<p>Item 10 Score Y (if all +) N (if any -)</p>
---	---	---

Example:



Item 10 would be scored "Y."

There is sufficient data to warrant an evaluation and it appears no changes are necessary given that progress is being made in the intended direction.

Part 3—Goal Attainment

Part 3 reviews the goals set and/or achieved for an eligible concern. Part 3 is used only when Part 2 has been completed for a particular concern and when **at least 2 weeks** of data have been collected after intervention implementation.

GOAL ATTAINMENT SCALING- (Part 3)

Goal Attainment for the SDF Concern Area:
Goal Attainment Scaling (Part 3) should be used for concerns in which SDF Review Part 2 has been completed and there are more than two weeks of data (or two data points) present following intervention implementation. Review the following Decision Boxes and determine which best describes the characteristics for the concern reviewed. Use the Goal Attainment Scale indicated in that Decision Box.

<p>Decision Box #1:</p> <ul style="list-style-type: none"> - 0 baseline indicated - no short-term goal - no data collected following intervention implementation <p style="text-align: center;">No Goal Attainment</p>	<p>Decision Box #2:</p> <ul style="list-style-type: none"> - 1-3 baseline points indicated - no short-term, no interim/ long-term goals - data collected following intervention implementation <p style="text-align: center;">Use Goal Attainment Scale A</p>	<p>Decision Box #3:</p> <ul style="list-style-type: none"> - 1-3 baseline points indicated - short-term or interim/ long-term goal indicated - data collected following intervention implementation <p style="text-align: center;">Use Goal Attainment Scale B</p>
---	--	---

Goal Attainment Scales:
Review the goal attainment scale selected. For Scale A, indicate ("1-4") the best description of goal attainment for the concern reviewed. For Scale B, indicate ("x") the highest or lowest level of goal attainment achieved. For example, if the short-term and interim goals were both met, place a "2" next to the interim goal.

<p style="text-align: center;">Goal Attainment Scale A</p> <ul style="list-style-type: none"> Progress above the baseline Progress below the baseline Progress consistent with baseline 	<p style="text-align: center;">Goal Attainment Scale B</p> <ul style="list-style-type: none"> Long-term goal met Interim goal met Short-term goal met Trend toward goal Trend consistent with baseline Trend below baseline
---	--

Selecting additional concerns to review:
If the SDF being reviewed has additional concerns that were addressed within the case, repeat the review process for the next concern using **SDF Parts 2 and 3**.

Staple or clip SDF Review Forms from the same case together!

Only one scale (A or B) is used to rate goal attainment for a particular concern.

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Deciding Whether and How to Rate Goal Attainment

Once a decision is made to rate a particular concern, use the decision tree to determine the rating method. Three Decision Boxes are available based upon the presence of baseline data and the setting of goals.

Depending on the number of baseline points collected and whether goals were set, decide to use Box 1, 2 or 3. Boxes 2 and 3 correspond to either Scale A or Scale B.

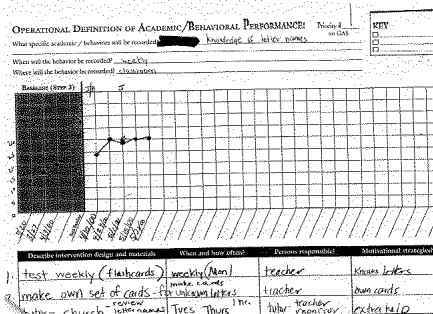
Part 3—Goal Attainment (continued)

Example:

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM

Student's Name: _____ Grade: 4 Date of Birth: 1/30/99 Date Started: 2/26/00
 Teacher's Name: _____ Case Manager: _____ School: _____

Step 1: Initial description of concern	Letter SOUNDS	Letter SOUNDS	Letter SOUNDS
Step 2: Priority	Importance 1 2 3 4 (circle at instructional level, Y 0)	Importance 1 2 3 4 (circle at instructional level, Y 0)	Importance 1 2 3 4 (circle at instructional level, Y 0)
Step 3: Operational/observable measure of concern performance (following header)	2/26/00 Knows letter sounds	3/1/00 Knows letter sounds	3/1/00 Knows letter sounds
Step 4: Short-term goal (Specify performance in 7 words (4-8 words))	Knows letter sounds	Knows letter sounds	Knows letter sounds
Step 5: Interim goal (Specify behavior in 7 words)	Knows letter sounds	Knows letter sounds	Knows letter sounds
Step 6: Long-term goal (Specify behavior in 12 words)	Knows letter sounds	Knows letter sounds	Knows letter sounds



GOAL ATTAINMENT SCALING - (Part 3)

Goal Attainment for the SDF Concern Area:
 Goal Attainment Scaling (Part 3) should be used for concerns in which SDF Review Part 2 has been completed and there are more than two weeks of data (or two data points) present following intervention implementation. Review the following Decision Boxes and determine which best describes the characteristics for the concern reviewed. Use the Goal Attainment Scale indicated in that Decision Box.

Decision Box #1: - 0 baseline indicated - no short-term goal - no data collected following intervention implementation	Decision Box #2: - 1-3 baseline points indicated - no short-term, no interim long-term goals - data collected following intervention implementation	Decision Box #3: - 1-3 baseline points indicated - short-term or interim long-term goal indicated - data collected following intervention implementation
No Goal Attainment	Use Goal Attainment Scale A	Use Goal Attainment Scale B

Goal Attainment Scales:
 Review the goal attainment scale selected. For Scale A, indicate ("A") the best description of goal attainment for the concern reviewed. For Scale B, indicate ("B") the highest or lowest level of goal attainment achieved. For example, if the short-term and interim goals were both met, place a "+" next to the interim goal.

Goal Attainment Scale A	Goal Attainment Scale B
_____ Progress above the baseline _____ Progress below the baseline _____ Progress consistent with baseline	_____ Long-term goal met _____ Interim-goal met _____ Short-term goal met _____ Trend toward goal _____ Trend consistent with baseline _____ Trend below baseline

Selecting additional concerns to review:
 If the SDF being reviewed has additional concerns areas that were addressed within the case, repeat the review process for the next concern using SDF Parts 2 and 3.
Staple or clip SDF Review Forms from the same case together!

For the concern "Letter Names," more than 2 weeks of data are present. Therefore, Part 3 should be used.

Three baseline points were collected and at least a short term goal was set. Therefore, Scale B should be used.

The short-term goal was met and therefore should be indicated on Scale B.

Now return to the SDF to determine if additional concerns are "scorable" and proceed with scoring as appropriate.

IV. SCORING EXAMPLES

On the pages that follow, additional scoring examples are provided. Copies of actual Student Documentation Forms are presented, each followed by the respective Review forms that have been completed by an expert rater. The expert rater has established reliability with other raters who have extensive experience in the completion of SDF Review forms.

The examples are intended to demonstrate particularly difficult scoring situations. When in doubt about scoring an item, refer to the directions on the form carefully first, then refer to these examples for additional guidance.

Example 1: SDF Review

STUDENT DOCUMENTATION FORM REVIEW- (Part 1)

System's Tracking Information:
SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. SDF Review Part 1 should be completed even if there is no SDF available to review for that case. The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.	Case manager's Name:	_____
	Teacher's Name:	_____
	Student Name:	_____
	School Name:	_____
	Request/Referral Date:	_____
	Date of 1 st Contact/ Contracting:	_____
	Final Stage of problem-solving indicated:	_____
	Last date entry was made on tracking form:	_____
	Indication whether case was closed:	_____
	Reason for case closure:	_____
COMMENTS:		

General SDF Scoring:
SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. Item 1 of SDF Review Part 1 should be completed even if there is no SDF available to review for that case.

Indicate whether the teacher or case manager has a SDF available for the case. Place a "+" if available or a "-" if not available.	SDF Available _____ + _____	Item 1 Score <input checked="" type="radio"/> Y (if +) N (if -)
Review the 1 st Page of the SDF for the presence of the following information. Place a "+" if the information is present or a "-" if not present.	Case manager's Name: _____ + _____ Teacher's Name: _____ + _____ Student Name: _____ + _____ Date Started: _____ + _____ COMMENTS:	Item 2 Score <input checked="" type="radio"/> Y (if all +) N (if any -)
Review SDF consultation summary on back of form. Indicate whether the information is present or absent. "+" if present or "-" if not present.	SDF Consultation Summary: Date of each contact; _____ + _____ Brief summary of consultation: _____ + _____ Follow-up meetings and tasks: _____ + _____	Item 3 Score <input checked="" type="radio"/> Y (if all +) N (if any -)

See SDF Review Form 2 to determine whether a SDF Concern can be scored.

STUDENT DOCUMENTATION FORM REVIEW- (Part 2)

Selecting the SDF Concern Area to Score: An SDF Part 2 should be completed for any case that has an SDF and has a concern area that has completed at least Step 3 of the Problem Analysis Stage (see Steps 1-6 on the SDF). The first concern to be scored should be that which has progressed furthest through the problem-solving stages as indicated by documentation on the SDF. Note: There may be up to four Part 2s per SDF (one for each concern that has progressed through the problem-solving stages enough to be scored).		
Write the general description of the Concern to be reviewed.	Concern area to be scored: <i>written language</i>	
Review the GAS (on page 1 of the SDF) for the presence ("+") or absence ("-") of the following information for the concern being scored NOTE: Optional information should be recorded but not included within the scoring of the item.	A) General Statement of Concern <u>+</u> B) Instructional level considered <u>+</u> <i>(Is Y or N circled?)</i> C) Statement of current performance following baseline <u>+</u> <i>(Statement in words or numbers, as long as it is clearly a statement of baseline)</i> D) Measurable short-term goal with time specified <u>+</u> <i>Optional: Are there Interim / long-term goals with time specified? ()</i> COMMENTS:	Item 4A Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4B Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4C Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4D Score <input checked="" type="radio"/> Y <input type="radio"/> N
Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+") or absent ("-"). NOTE: Optional information should be recorded but not included within the scoring of the item.	Operational Definition: What specific behavior will be recorded: <u>+</u> When will the behavior be recorded: <u>+</u> <i>Optional: Where will the behavior be recorded ()</i> COMMENTS:	Item 5 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)
Review the graph for the concern (page 2 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1st Concern: 0 baseline points recorded: <u>+</u> 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: _____ COMMENTS:	Item 6 Score <input type="radio"/> Y (if 2 or more baseline points recorded) <input checked="" type="radio"/> N (if less than 2 baseline points recorded)
SDF Part 2 Continues on back		

STUDENT DOCUMENTATION FORM REVIEW- (Part 2 Continued)

<p>Review the graph for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if unlabeled axis could reasonably be identified from information within the operational definition.</p>	<p>Graph Labels:</p> <p>Clearly marked vertical axis: <u> - </u></p> <p>Clearly marked horizontal axis: <u> - </u></p> <p>COMMENTS:</p>	<p>Item 7 Score</p> <p>Y (if all +)</p> <p><input checked="" type="radio"/> N (if any -)</p>
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STOP Stop scoring here if case has not begun Intervention Design

<p>Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if intervention described on accompanying documentation.</p>	<p>Intervention Description:</p> <p>What of intervention: <u> + </u></p> <p>When of intervention: <u> + </u></p> <p>Who of Intervention: <u> + </u></p> <p>COMMENTS:</p> <p>STOP: NO intervention has been implemented.</p>	<p>Item 8 Score</p> <p><input checked="" type="radio"/> Y (if all +)</p> <p>N (if any -)</p>
--	--	---

STOP Stop scoring here if case has not begun Intervention Implementation

<p>Review the graph, intervention description and consultation summary to determine if there is an indication ("+") of intervention implementation.</p>	<p>Intervention Implementation:</p> <p>Intervention implementation indicated on graph or on SDF Consultation Summary. <u> - </u></p> <p>COMMENTS:</p>	<p>Item 9 Score</p> <p>Y (if +)</p> <p>N (if -)</p>
---	--	--

STOP Stop scoring here if case has not begun Intervention Evaluation

<p>Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+").</p> <p>Intervention should be evaluated within 6 weeks of implementation.</p> <p>NOTE: if data indicates progress toward stated goal, no indication of evaluation required. However, if progress is limited or declining, review SDF for indication of change in intervention.</p>	<p>Intervention Evaluation:</p> <p>Data (beyond baseline) made weekly or regular basis with rationale provided: <u> - </u></p> <p>Intervention Evaluation indicated: <u> - </u></p> <p>COMMENTS:</p>	<p>Item 10 Score</p> <p>Y (if all +)</p> <p>N (if any -)</p>
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See SDF Review Part 3 to determine whether Goal Attainment can be scored.

STUDENT DOCUMENTATION FORM REVIEW- (Part 2)

Selecting the SDF Concern Area to Score: An SDF Part 2 should be completed for any case that has an SDF and has a concern area that has completed at least Step 3 of the Problem Analysis Stage (see Steps 1-6 on the SDF). The first concern to be scored should be that which has progressed furthest through the problem-solving stages as indicated by documentation on the SDF. Note: There may be up to four Part 2s per SDF (one for each concern that has progressed through the problem-solving stages enough to be scored).		
Write the general description of the Concern to be reviewed.	Concern area to be scored: <u>organization</u>	
Review the GAS (on page 1 of the SDF) for the presence ("+") or absence ("-") of the following information for the concern being scored NOTE: Optional information should be recorded but not included within the scoring of the item.	A) General Statement of Concern <u>+</u> B) Instructional level considered <u>+</u> <i>(Is Y or N circled?)</i> C) Statement of current performance following baseline <u>+</u> <i>(Statement in words or numbers, as long as it is clearly a statement of baseline)</i> D) Measurable short-term goal with time specified <u>+</u> <i>Optional: Are there Interim / long-term goals with time specified? ()</i> COMMENTS:	Item 4A Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4B Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4C Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4D Score <input checked="" type="radio"/> Y <input type="radio"/> N
Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+") or absent ("-"). NOTE: Optional information should be recorded but not included within the scoring of the item.	Operational Definition: What specific behavior will be recorded: <u>-</u> When will the behavior be recorded: <u>-</u> <i>Optional: Where will the behavior be recorded ()</i> COMMENTS:	Item 5 Score <input type="radio"/> Y (if all +) <input checked="" type="radio"/> N (if any -)
Review the graph for the concern (page 2 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1st Concern: 0 baseline points recorded: <u>+</u> 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: _____ COMMENTS:	Item 6 Score <input type="radio"/> Y (if 2 or more baseline points recorded) <input checked="" type="radio"/> N (if less than 2 baseline points recorded)
SDF Part 2 Continues on back		

STUDENT DOCUMENTATION FORM REVIEW- (Part 2 Continued)

<p>Review the graph for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if unlabeled axis could reasonably be identified from information within the operational definition.</p>	<p>Graph Labels: Clearly marked vertical axis: <u> </u> Clearly marked horizontal axis: <u> </u></p> <p>COMMENTS: STOP: No intervention has been designed.</p>	<p>Item 7 Score</p> <p>Y (if all +) N (if any -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Design</p>		
<p>Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if intervention described on accompanying documentation.</p>	<p>Intervention Description: What of intervention: <u> </u> When of intervention: <u> </u> Who of Intervention: <u> </u></p> <p>COMMENTS:</p>	<p>Item 8 Score</p> <p>Y (if all +) N (if any -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Implementation</p>		
<p>Review the graph, intervention description and consultation summary to determine if there is an indication ("+") of intervention implementation.</p>	<p>Intervention Implementation: Intervention implementation indicated on graph or on SDF Consultation Summary. <u> </u></p> <p>COMMENTS:</p>	<p>Item 9 Score</p> <p>Y (if +) N (if -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Evaluation</p>		
<p>Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+"). Intervention should be evaluated within 6 weeks of implementation.</p> <p>NOTE: If data indicates progress toward stated goal, no indication of evaluation required. However, if progress is limited or declining, review SDF for indication of change in intervention.</p>	<p>Intervention Evaluation: Data (beyond baseline) made weekly or regular basis with rationale provided: <u> </u></p> <p>Intervention Evaluation indicated: <u> </u></p> <p>COMMENTS:</p>	<p>Item 10 Score</p> <p>Y (if all +) N (if any -)</p>
<p>See SDF Review Part 3 to determine whether Goal Attainment can be scored.</p>		

Example 2: SDF

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM

Student's Name: [Redacted] #7 Grade P-K Date Started 3/27/00

Teacher's Name: [Redacted] Case Manager: [Redacted] School: [Redacted]

GOAL ATTAINMENT SCALE (GAS)

<p>Step 1: Initial description of concern</p>	<p><i>Inability to focus with consistency</i></p>	<p><i>Inability to follow simple directions.</i></p>	<p><i>Concerned possible receptive language problems</i></p>	
<p>Step 2: Prioritize</p>	<p>Importance <u>1</u> 2 3 4 (student at instructional level) <u>(Y)</u> <u>(N)</u> 4/10/00</p>	<p>Importance <u>2</u> 3 4 (student at instructional level) <u>(N)</u> 4/10/00</p>	<p>Importance 1 2 3 4 (student at instructional level) <u>(Y)</u> <u>(N)</u></p>	<p>Importance 1 2 3 4 (student at instructional level) <u>(Y)</u> <u>(N)</u></p>
<p>Step 3: Observable/measurable statement of current performance (following baseline)</p>	<p><i>Measure procedural commands</i></p>	<p>Date collected _____</p>	<p>Date collected _____</p>	<p>Date collected _____</p>
<p>Step 4: Short-term goal: Expected performance in _____ weeks (4-6 weeks)</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>
<p>Step 5: Interim goal: Expected behavior in _____ weeks</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>
<p>Step 6: Long-term goal: Expected behavior in _____ weeks</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>	<p>Date consistently attained _____</p>

Example 2: SDF Review

STUDENT DOCUMENTATION FORM REVIEW- (Part 1)

System's Tracking Information:
 SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. SDF Review Part 1 should be completed even if there is no SDF available to review for that case. The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.	Case manager's Name:	_____
	Teacher's Name:	_____
	Student Name:	_____
	School Name:	_____
	Request/Referral Date:	_____
	Date of 1 st Contact/ Contracting:	_____
	Final Stage of problem-solving indicated:	_____
	Last date entry was made on tracking form:	_____
	Indication whether case was closed:	_____
	Reason for case closure:	_____
COMMENTS:		

General SDF Scoring:
 SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. Item 1 of SDF Review Part 1 should be completed even if there is no SDF available to review for that case.

Indicate whether the teacher or case manager has a SDF available for the case. Place a "+" if available or a "-" if not available.	SDF Available <u> + </u>	Item 1 Score <input checked="" type="radio"/> Y (if +) <input type="radio"/> N (if -)
Review the 1 st Page of the SDF for the presence of the following information. Place a "+" if the information is present or a "-" if not present.	Case manager's Name: <u> + </u> Teacher's Name: <u> + </u> Student Name: <u> + </u> Date Started: <u> + </u> COMMENTS:	Item 2 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)
Review SDF consultation summary on back of form. Indicate whether the information is present or absent. "+" if present or "-" if not present.	SDF Consultation Summary: Date of each contact; <u> + </u> Brief summary of consultation: <u> + </u> Follow-up meetings and tasks: <u> + </u>	Item 3 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)

See SDF Review Form 2 to determine whether a SDF Concern can be scored.

[* No concerns are scorable.]
 STOP scoring here.

Example 3: SDF

2

INSTRUCTIONAL CONSULTATION STUDENT DOCUMENTATION FORM

Student's Name: [Redacted] Date Started: 10/4/99

Teacher's Name: [Redacted] Grade: 4 Date of Birth: [Redacted]

Case Manager: [Redacted] School: [Redacted]

GOAL ATTAINMENT SCALE (GAS) *noise*

Step 1: Initial description of concern	Defiant behav.	Stealing/Hoist	Low Academics (Reading concerns)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)
Step 2: Prioritize	Importance 1, 2, 3, 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)	Importance 1 2 3 4 (student at instructional level? Y N)
Step 3: Observable/measurable statement of current performance (following baseline)	Date collected _____	Date collected _____	Date collected 2-1-00	Date collected 2-1-00	Date collected 2-1-00
Step 4: Short-term goal: Expected performance in 6 weeks (4-6 weeks)	Date consistently attained _____	Date consistently attained _____	Master Pre-primer list 4/4/00	Master Pre-primer list 4/4/00	Date consistently attained _____
Step 5: Interim goal: Expected behavior in _____ weeks	Date consistently attained _____	Date consistently attained _____	Master primer list	Master primer list	Date consistently attained _____
Step 6: Long-term goal: Expected behavior in _____ weeks	Date consistently attained _____	Date consistently attained _____	Open Court Sounds	Open Court Sounds	Date consistently attained _____

Handwritten notes in table:

- Step 3: Open court sounds - 33 (2/27/97), 154 (2/27/97), 192 (2/27/97), 193 (2/27/97), 194 (2/27/97), 195 (2/27/97), 196 (2/27/97), 197 (2/27/97), 198 (2/27/97), 199 (2/27/97), 200 (2/27/97)
- Step 4: Master Pre-primer list 4/4/00
- Step 5: Master primer list
- Step 6: Open Court Sounds



OPERATIONAL DEFINITION OF ACADEMIC/BEHAVIORAL PERFORMANCE: Priority # 1

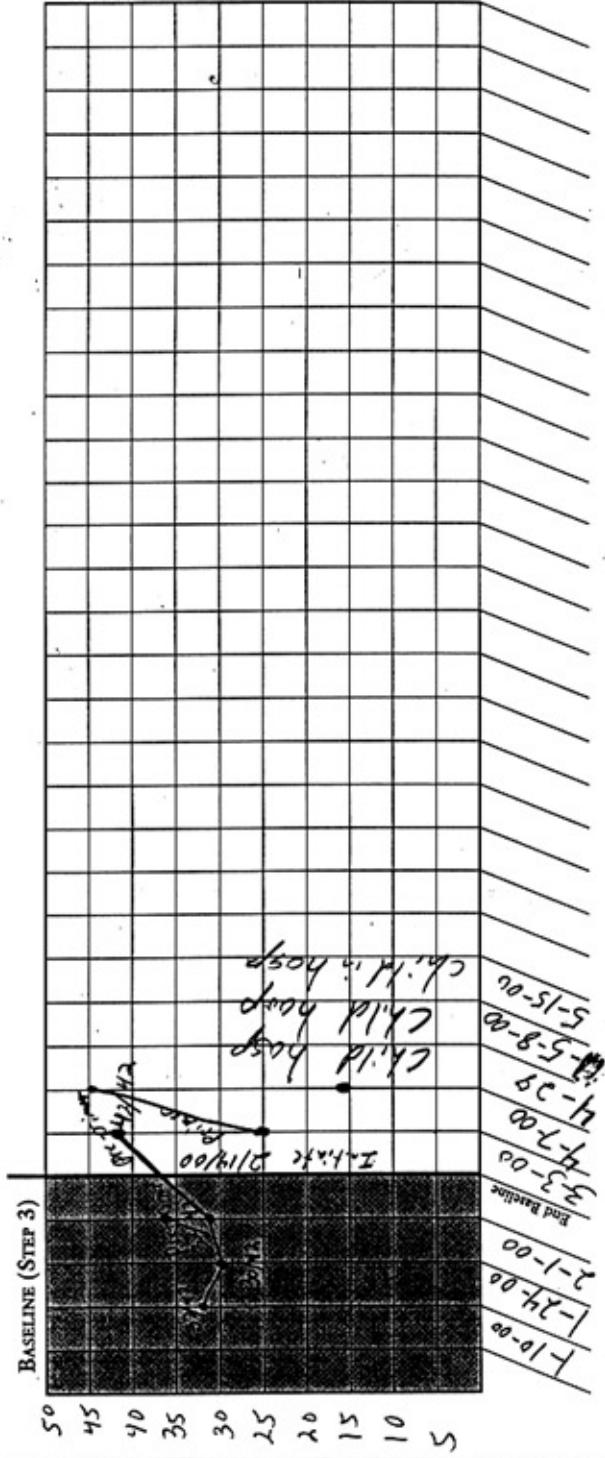
What specific academic/behaviors will be recorded? The number of words on the Dolch word list that are read correctly.

When will the behavior be recorded? Weekly basis

Where will the behavior be recorded? In the classroom

KEY

- Pre-primer
- Primer
- First



Describe intervention design and materials	When and how often?	Persons responsible?	Motivational strategies?
1:1 Adult work, shuffle letters (2/15)	Everyday	Social Worker/Volunteer	
Small group by ability	Three times a week	Various teachers, Zobir, Mrs. Zobir	

OPERATIONAL DEFINITION OF ACADEMIC/ BEHAVIORAL PERFORMANCE: Priority # 1
on GAS

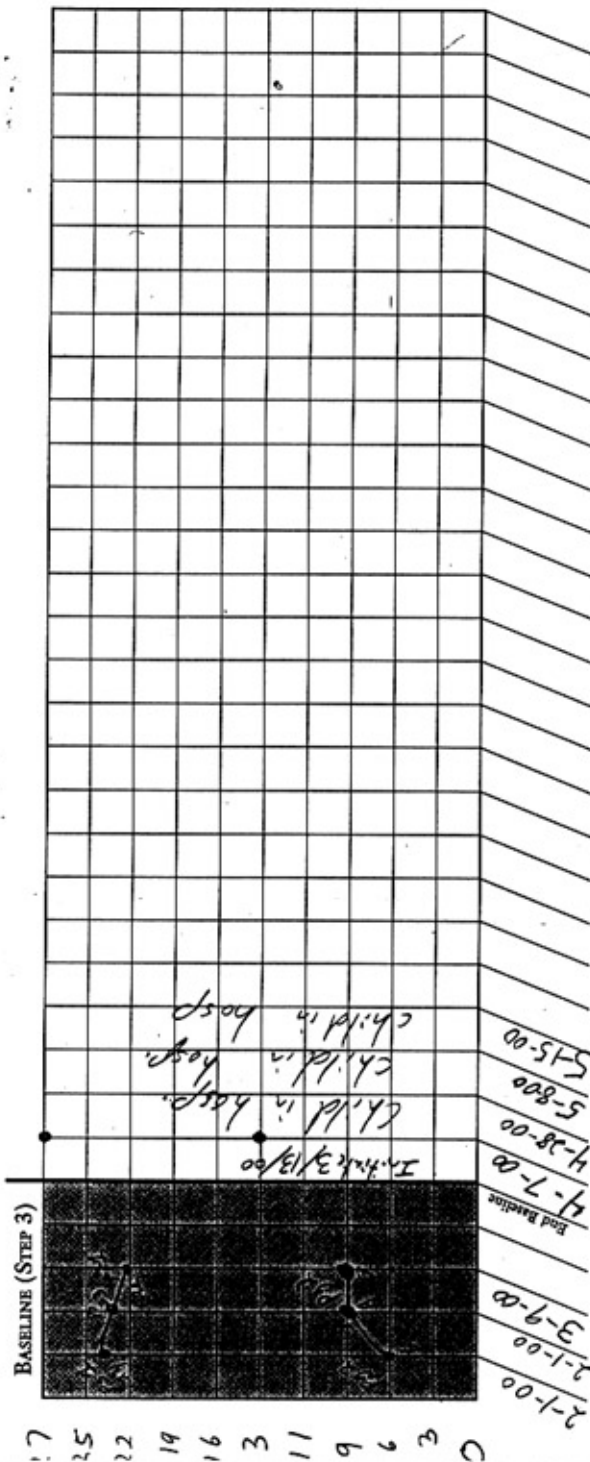
What specific academic / behaviors will be recorded? The amount of open level sounds correctly identified.

When will the behavior be recorded? on a bi-weekly basis

Where will the behavior be recorded? In the classroom, by his teacher.

KEY

- Primary (p.1) sounds
- Secondary (p.2) sounds
-



Describe intervention design and materials	When and how often?	Persons responsible?	Motivational strategies?
Flash Sounds Cards (Intimate 3-13-00)	5x's a day Every day	Teacher, 5th grade tutor	

Example 3: SDF Review

STUDENT DOCUMENTATION FORM REVIEW- (Part 1)

System's Tracking Information:
 SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. SDF Review Part 1 should be completed even if there is no SDF available to review for that case. The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.

The following information should be completed using the system's tracking form. A current and up-to-date copy of the System's Tracking Form should be obtained from the system's manager or team facilitator.	Case manager's Name:	_____
	Teacher's Name:	_____
	Student Name:	_____
	School Name:	_____
	Request/Referral Date:	_____
	Date of 1 st Contact/ Contracting:	_____
	Final Stage of problem-solving indicated:	_____
	Last date entry was made on tracking form:	_____
	Indication whether case was closed:	_____
	Reason for case closure:	_____
COMMENTS:		

General SDF Scoring:
 SDF Review Part 1 should be completed for each case listed on the IC-Team System's Tracking Form. Item 1 of SDF Review Part 1 should be completed even if there is no SDF available to review for that case.

Indicate whether the teacher or case manager has a SDF available for the case. Place a "+" if available or a "-" if not available.	SDF Available <u> + </u>	Item 1 Score <input checked="" type="radio"/> Y (if +) <input type="radio"/> N (if -)
Review the 1 st Page of the SDF for the presence of the following information. Place a "+" if the information is present or a "-" if not present.	Case manager's Name: <u> + </u> Teacher's Name: <u> + </u> Student Name: <u> + </u> Date Started: <u> + </u> COMMENTS:	Item 2 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)
Review SDF consultation summary on back of form. Indicate whether the information is present or absent. "+" if present or "-" if not present.	SDF Consultation Summary: Date of each contact: <u> + </u> Brief summary of consultation: <u> + </u> Follow-up meetings and tasks: <u> + </u>	Item 3 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)

See SDF Review Form 2 to determine whether a SDF Concern can be scored.

STUDENT DOCUMENTATION FORM REVIEW- (Part 2)

Selecting the SDF Concern Area to Score: An SDF Part 2 should be completed for any case that has an SDF and has a concern area that has completed at least Step 3 of the Problem Analysis Stage (see Steps 1-6 on the SDF). The first concern to be scored should be that which has progressed furthest through the problem-solving stages as indicated by documentation on the SDF. Note: There may be up to four Part 2s per SDF (one for each concern that has progressed through the problem-solving stages enough to be scored).		
Write the general description of the Concern to be reviewed.	Concern area to be scored: <i>reading concerns (#words read correctly)</i>	
Review the GAS (on page 1 of the SDF) for the presence ("+" or "-") of the following information for the concern being scored. NOTE: Optional information should be recorded but not included within the scoring of the item.	A) General Statement of Concern <u>+</u> B) Instructional level considered <u>-</u> <i>(Is Y or N circled?)</i> C) Statement of current performance following baseline <u>+</u> <i>(Statement in words or numbers, as long as it is clearly a statement of baseline)</i> D) Measurable short-term goal with time specified <u>+</u> <i>Optional: Are there Interim / long-term goals with time specified? ()</i> COMMENTS:	Item 4A Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4B Score <input type="radio"/> Y <input checked="" type="radio"/> N Item 4C Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4D Score <input checked="" type="radio"/> Y <input type="radio"/> N
Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+") or absent ("-"). NOTE: Optional information should be recorded but not included within the scoring of the item.	Operational Definition: What specific behavior will be recorded: <u>+</u> When will the behavior be recorded: <u>+</u> <i>Optional: Where will the behavior be recorded ()</i> COMMENTS:	Item 5 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)
Review the graph for the concern (page 2 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1 st Concern: 0 baseline points recorded: _____ 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: <u>+</u> COMMENTS:	Item 6 Score <input checked="" type="radio"/> Y (if 2 or more baseline points recorded) <input type="radio"/> N (if less than 2 baseline points recorded)
SDF Part 2 Continues on back		

STUDENT DOCUMENTATION FORM REVIEW- (Part 2 Continued)

<p>Review the graph for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if unlabeled axis could reasonably be identified from information within the operational definition.</p>	<p>Graph Labels: Clearly marked vertical axis: <u>+</u> Clearly marked horizontal axis: <u>+</u></p> <p>COMMENTS:</p>	<p>Item 7 Score</p> <p><input checked="" type="radio"/> Y (if all -) N (if any -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Design</p>		
<p>Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if intervention described on accompanying documentation.</p>	<p>Intervention Description: What of intervention: <u>+</u> When of intervention: <u>+</u> Who of Intervention: <u>+</u></p> <p>COMMENTS:</p>	<p>Item 8 Score</p> <p><input checked="" type="radio"/> Y (if all +) N (if any -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Implementation</p>		
<p>Review the graph, intervention description and consultation summary to determine if there is an indication ("+") of intervention implementation.</p>	<p>Intervention Implementation: Intervention implementation indicated on graph or on SDF Consultation Summary. <u>+</u></p> <p>COMMENTS:</p>	<p>Item 9 Score</p> <p><input checked="" type="radio"/> Y (if +) N (if -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Evaluation</p>		
<p>Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+"). Intervention should be evaluated within 6 weeks of implementation.</p> <p>NOTE: if data indicates progress toward stated goal, no indication of evaluation required. However, if progress is limited or declining, review SDF for indication of change in intervention.</p>	<p>Intervention Evaluation: Data (beyond baseline) made weekly or regular basis with rationale provided: <u>+</u> Intervention Evaluation indicated: <u>+</u></p> <p>COMMENTS:</p>	<p>Item 10 Score</p> <p><input checked="" type="radio"/> Y (if all +) N (if any -)</p>
<p>See SDF Review Part 3 to determine whether Goal Attainment can be scored.</p>		

GOAL ATTAINMENT SCALING- (Part 3)

Goal Attainment for the SDF Concern Area:

Goal Attainment Scaling (Part 3) should be used for concerns in which SDF Review Part 2 has been completed and there are more than two weeks of data (or two data points) present following intervention implementation. Review the following Decision Boxes and determine which best describes the characteristics for the concern reviewed. Use the Goal Attainment Scale indicated in that Decision Box.

Decision Box #1:

- 0 baseline indicated
- no short-term goal
- no data collected following intervention implementation

No Goal Attainment

Decision Box #2:

- 1-3 baseline points indicated
- no short-term, no interim/ long-term goals
- data collected following intervention implementation

Use Goal Attainment Scale A

Decision Box #3:

- 1-3 baseline points indicated
- short-term or interim/ long-term goal indicated
- data collected following intervention implementation

Use Goal Attainment Scale B

Goal Attainment Scales:

Review the goal attainment scale selected. For Scale A, indicate ("+") the best description of goal attainment for the concern reviewed. For Scale B, indicate ("+") the highest or lowest level of goal attainment achieved. For example, if the short-term and interim goals were both met, place a "+" next to the interim goal.

Goal Attainment Scale A

- _____ Progress above the baseline
- _____ Progress below the baseline
- _____ Progress consistent with baseline

Goal Attainment Scale B

- _____ Long-term goal met
- _____ Interim-goal met
- Short-term goal met
- _____ Trend toward goal
- _____ Trend consistent with baseline
- _____ Trend below baseline

Selecting additional concerns to review:

If the SDF being reviewed has additional concern areas that were addressed within the case, repeat the review process for the next concern using SDF Parts 2 and 3.

Staple or clip SDF Review Forms from the same case together!

STUDENT DOCUMENTATION FORM REVIEW- (Part 2)

Selecting the SDF Concern Area to Score: An SDF Part 2 should be completed for any case that has an SDF and has a concern area that has completed at least Step 3 of the Problem Analysis Stage (see Steps 1-6 on the SDF). The first concern to be scored should be that which has progressed furthest through the problem-solving stages as indicated by documentation on the SDF. Note: There may be up to four Part 2s per SDF (one for each concern that has progressed through the problem-solving stages enough to be scored).		
Write the general description of the Concern to be reviewed.	Concern area to be scored: <i>amount of open court sounds identified</i>	
Review the GAS (on page 1 of the SDF) for the presence ("+") or absence ("-") of the following information for the concern being scored NOTE: Optional information should be recorded but not included within the scoring of the item.	A) General Statement of Concern <u>+</u> B) Instructional level considered <u>-</u> <i>(Is Y or N circled?)</i> C) Statement of current performance following baseline <u>+</u> <i>(Statement in words or numbers, as long as it is clearly a statement of baseline)</i> D) Measurable short-term goal with time specified <u>+</u> <i>Optional: Are there Interim / long-term goals with time specified? ()</i> COMMENTS:	Item 4A Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4B Score <input type="radio"/> Y <input checked="" type="radio"/> N Item 4C Score <input checked="" type="radio"/> Y <input type="radio"/> N Item 4D Score <input checked="" type="radio"/> Y <input type="radio"/> N
Review the Operational Definition of the concern (page 2 of SDF). Indicate whether the information is present ("+") or absent ("-"). NOTE: Optional information should be recorded but not included within the scoring of the item.	Operational Definition: What specific behavior will be recorded: <u>+</u> When will the behavior be recorded: <u>+</u> <i>Optional: Where will the behavior be recorded ()</i> COMMENTS:	Item 5 Score <input checked="" type="radio"/> Y (if all +) <input type="radio"/> N (if any -)
Review the graph for the concern (page 2 of SDF). Indicate the type of baseline information recorded. Place a "+" next to the best description of baseline recorded.	Baseline for 1st Concern: 0 baseline points recorded: _____ 1 baseline point recorded: _____ 2 baseline points recorded: _____ 3 or more baseline points recorded: <u>+</u> COMMENTS:	Item 6 Score <input checked="" type="radio"/> Y (if 2 or more baseline points recorded) <input type="radio"/> N (if less than 2 baseline points recorded)
SDF Part 2 Continues on back		

STUDENT DOCUMENTATION FORM REVIEW- (Part 2 Continued)

<p>Review the graph for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if unlabeled axis could reasonably be identified from information within the operational definition.</p>	<p>Graph Labels: Clearly marked vertical axis: <u>+</u> Clearly marked horizontal axis: <u>+</u></p> <p>COMMENTS:</p>	<p>Item 7 Score</p> <p><input checked="" type="radio"/> Y (if all +) N (if any -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Design</p>		
<p>Review the intervention description for the concern (page 2 of SDF). Record whether the indicated information is present ("+") or absent ("-").</p> <p>NOTE: Score "+" if intervention described on accompanying documentation.</p>	<p>Intervention Description: What of intervention: <u>+</u> When of intervention: <u>+</u> Who of Intervention: <u>+</u></p> <p>COMMENTS:</p>	<p>Item 8 Score</p> <p><input checked="" type="radio"/> Y (if all +) N (if any -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Implementation</p>		
<p>Review the graph, intervention description and consultation summary to determine if there is an indication ("+") of intervention implementation.</p>	<p>Intervention Implementation: Intervention implementation indicated on graph or on SDF Consultation Summary. <u>+</u></p> <p>COMMENTS:</p>	<p>Item 9 Score</p> <p><input checked="" type="radio"/> Y (if +) N (if -)</p>
<p>STOP Stop scoring here if case has not begun Intervention Evaluation</p>		
<p>Review the graph, intervention description and consultation summary to determine if an evaluation of the intervention's effectiveness has been conducted ("+").</p> <p>Intervention should be evaluated within 6 weeks of implementation.</p> <p>NOTE: if data indicates progress toward stated goal, no indication of evaluation required. However, if progress is limited or declining, review SDF for indication of change in intervention.</p>	<p>Intervention Evaluation: Data (beyond baseline) made weekly or regular basis with rationale provided: <u>+</u></p> <p>Intervention Evaluation indicated: <u>+</u></p> <p>COMMENTS:</p>	<p>Item 10 Score</p> <p><input checked="" type="radio"/> Y (if all +) N (if any -)</p>
<p>See SDF Review Part 3 to determine whether Goal Attainment can be scored.</p>		

REFERENCES

Bahr, M.W. (1994). The status and impact of prereferral intervention: "We need a better way to determine success." *Psychology in the Schools, 31*, 309-318.

Burgee, M.L. (1995). A case study analysis of the intervention effect of goal attainment scaling in consultation (Maryland). Dissertation Abstracts International, 56 (08A), 3053 (University Microfilms No. AAI9539616).

Cohen's Kappa: Index of Inter-rater Reliability. Retrieved from <http://www-class.unl.edu/psycrs/handcomp/hckappa.pdf> (March 2003).

Flugum, K.R., & Reschly, D.J. (1994). Prereferral interventions: Quality indices and outcomes. *Journal of School Psychology, 32*, 1-14.

Fuchs, D., & Fuchs, L.S. (1989). Exploring effective and efficient prereferral interventions: A component analysis of behavioral consultation. *School Psychology Review, 18*, 260-283.

Gravois, T., Rosenfield, S., & Greenberg, B. (1992). Establishing reliability for coding implementation concerns of school-based teams from audiotapes. *Evaluation Review, 16*, 562-569.

Green-Resnick, B.M., & Rosenfield, S. (1989, March). *Monitoring student outcomes of a teacher support team service*. Paper presented at the Annual Meeting of the National Association of School Psychologists.

Gresham, F.M., MacMillan, D.L., Beebe-Frankenberger, M.E., & Bocian, K.M. (2000). Treatment integrity in learning disabilities intervention research: Do we really know how treatments are implemented. *Learning Disabilities Research & Practice, 15*, 198-205.

Gresham, F.M., & Noell, G.H. (1993). Documenting the effectiveness of consultation outcomes. In J.E. Zins, T.R. Kratochwill, & S.N. Elliott (Eds.), *Handbook of consultation services for children* (pp. 249-273). San Francisco: Jossey-Bass Publishers.

Gutkin, T.B. (1993). Conducting consultation research. In J.E. Zins, T.R. Kratochwill, & S.N. Elliott (Eds.), *Handbook of consultation services for children* (pp. 227-248). San Francisco: Jossey-Bass Publishers.

Jones, K.M., Wickstrom, K.F., & Friman, P.C. (1997). The effects of observational feedback on treatment integrity in school-based behavioral consultation. *School Psychology Quarterly, 12*, 316-326.

Kiresuk, T.J., Smith, A., & Cardillo, J.E. (Eds.). (1994). *Goal attainment scaling: Applications, theory, and measurement*. New Jersey: Lawrence Erlbaum Associates, Inc.

Lentz, F.E., Jr., Allen, S.J., & Ehrhardt, K.E. (1996). The conceptual elements of strong interventions in school settings. *School Psychology Quarterly, 11*, 118-136.

Levinsohn, M.R. (2000). Evaluating Instructional Consultation Teams for student reading achievement and special education outcomes. Unpublished doctoral dissertation, University of Maryland College Park.

Moncher, F.J., & Prinz, R.J. (1991). Treatment fidelity in outcome studies. *Clinical Psychology Review, 11*, 247-266.

Moniodis, D.M. (1996). An evaluation of the Instructional Consultation Team's monitoring system of student outcomes. Unpublished Master's thesis, University of Maryland College Park.

- Noell, G.H., Witt, J.C., Gilbertson, D.N., Ranier, D.D., & Freeland, J.T. (1997). Increasing teacher intervention implementation in general education settings through consultation and performance feedback. *School Psychology Quarterly, 12*, 77-88.
- Reynolds, C.R., & Gutkin, T.B. (Eds.) (1999). *The handbook of school psychology, 3rd Ed.* New York: John Wiley & Sons, Inc.
- Rosenfield, S. (1987). *Instructional consultation.* Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rosenfield, S. (2001). Best practices in instructional consultation. In A. Thomas & J. Grimes (Eds.). *Best Practices in School Psychology IV* (pp. 615-629). Bethesda: MD: National Association of School Psychologists.
- Rosenfield, S., & Gravois, T. (1996). *Instructional consultation teams: Collaborating for change.* New York: Guilford.
- Sheridan, S.M., Welch, M., & Orme, S.F. (1996). Is consultation effective: A review of outcome research. *Remedial & Special Education, 17*, 341-354.
- Sterling-Turner, H.E. (1999). The effects of direct training, treatment acceptability, and treatment integrity on treatment outcomes in school consultation. *Dissertation Abstracts International, 60* (09A), 3273 (University Microfilms No. 0419-4209).
- Sterling-Turner, H.E., Watson, T.S., Wildmon, M., Watkins, C., and Little, E. (2001). Investigating the relationship between training type and treatment integrity. *School Psychology Quarterly, 16*, 56-67.

Telzrow, C.F., McNamara, K., & Hollinger, C.L. (2000). Fidelity of problem-solving implementation and relationship to student performance. *School Psychology Review, 29*, 443-461.

Upah, K.R.F. (1998). School-based problem-solving interventions: The impact of training and documentation on the quality and outcomes. *Dissertation Abstracts International, 59* (07A), 2349 (University Microfilms No. AAM9841093).

Vail, P.L. (1996). Instructional Consultation Teams: Analysis of level of implementation over two years and its relationship with team collaboration. Unpublished Master's thesis, University of Maryland College Park.

Watson, T.S., & Sterling, H.E. (1997). Demythifying behavioral consultation. *School Psychology Review, 26*, 467-474.

Wickstrom, K.F., Jones, K.M., LaFleur, L.H., & Witt, J.C. (1998). An analysis of treatment integrity in school-based behavioral consultation. *School Psychology Quarterly, 13*, 141-154.

Yeaton, W.H., & Sechrest, L. (1981). Critical dimensions in the choice and maintenance of successful treatments: Strength, integrity, and effectiveness. *Journal of Consulting & Clinical Psychology, 49*, 156-167.